

- ::: N&O #19 ::: -

WUN members who read this column as part of the WUN newsletter may want to download the extended version of N&O for the logs section. You can find N&O at <http://home.luna.nl/~ary>

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Several people have asked for ENIGMA codes for the various Chinese and Korean stations. Well, not all stations have a code, but I'll give you the ones that I know.

V22 - Beijing calling  
V09 - Guangzhou calling  
V15 - Pyongyang  
M40/M53 - N.Korean cw stations (see below)

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::: M40/M53 - THE KOREAN NUMBERS SERIES CONTINUES.....  
 Hideharu Torii has monitored M40/M53 for quite some time and sends  
 us the following schedules and info. Thank you very much, Hideharu!

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- Schedules
Call      UTC /
          Frequencies in kHz
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CQ 113	1400/1600 5150 5590 5810	1430/1630 4700 (Nov.-Feb.) 6630 (March-April, Sept.-Oct) 8210 (May-Aug.)
CQ 466	1500/1600 4660 5150 5650	1530/1630 5650 (Nov.-Feb.) 5810 (March-April, Sept.-Oct.) 6870 (May-Aug.)
CQ 466	0630 (Tuesday-Thursday) 8110 (March-April, Sept.-Oct.) 8620 (May-Sept.)	
CQ 432	1400/1500 5535	1430/1530 4600 (Nov.-Feb.)
CQ 974	1400/1500 5535	1430/1530 6750 (March-April, Sept.-Oct.)
CQ 863	1400/1500 5535	1430/1530 7400 (May-Aug.)
CQ 735	1600 5190	1630 5900 (May-Aug.)
CQ 515	1700 12300	1730 16100
CQ 707	1630 4670/5200 (March-April, Sept.-Oct.)	
CQ 909	1630 5670/6425 (May-Aug.)	
CQ 295	1630 5210 (March-April)	
CQ 616	2300 8110	2330 (4th, 5th, 20th, 21st of each month) 8880
CQ 747	0900/1000/2000 10620	0930/1030/2030 12948

- Comments

This station has been observed for decades. The signal is very strong here in Tokyo. The station changes its frequencies in March,

May, Sept. and Nov.

All stations transmit in A-2 mode but for CQ515 and CQ747. Messages are rebroadcast 30 minutes later except for CQ707/CQ909. The same messages are repeated for two days at the same time on the same freq. The speed of CQ747 is slower, compared with that of other CQ3f. In case of A-2 mode, carrier appears more than 15 minutes before the start of a message. CQ707 and CQ909 replace each other with frequency changes. CQ 863 and CQ974 do so also. The station has at least four transmitters.

Hideharu says: "I believe the station is operated by the Research Department for External Intelligence, one of four intelligence units at the Central Committee of the Workers Party of Korea. North Korean agent Kim Hyun Hee, who was convicted for blowing up a KAL Boeing in 1987, belonged to the department. In "Now, As A Woman," the Japanese version of her best selling book, "The Tears of My Soul," she writes she received A-2 Morse coded messages while in Guangzhou, southern China, and Macao in 1985. She received messages at midnight on 10th, 11th, 25th and 26th of every month on 8050, 10300 and 16100kHz. The callsign of her group was CQ616 and her individual callsigns were 083, 914, 493 and 490. The English version does not mention this practice."

Interesting, Hideharu. I read the following in a 1997 report about the two DPRK spies who were captured in South Korea. They were also VERY well equipped.

'Confiscated equipment used by the agents are as follows:

205 items of 10 different types of lethal equipment, including 3 hand grenades, 170 live cartridges, 4 poison guns, 14 poison needles, and 6 poison capsules; 94 items of 16 types of communications equipment, including 6 radio transmitters; code books; reagent bottles and paper for hiding letters; 4 forged identification cards; forged policeman's identification for emergency use; some 23 million won in cash, which is the remainder of some 30 million won they had received as operation funds; and explosion fuses found at Sim Chong-ung's residence.'

Wow!

-O-O-O-O-O-O-O-O-O-O-

::: MORE N.KOREAN CW NUMBERS

More N.Korean numbers news from Hideharu:

North Korea operates another A-1 Morse code message transmission on 4700 kHz. The station appears irregularly on the hour between evening and early morning in local time (0900-2000 UTC).

The broadcast at 2100 in local time on June 2 was as follows:

VVV VVV VVV JVG JVG JVG DE BML BML BML

QSA3 QSA? QTC 626 QTC NR 626

28 19 0602 2100 302 837 BT

Then five-digit figures were transmitted and repeated again.

The broadcast ends with "K K".

19 means group count. 0602 means June 2 and 2100 in local time. It uses short zero's and is hand sent. JVG is the most logged. JVL sometimes appears. The frequency is North Korea's traditional one for numerical broadcasts including in voice.

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::: HEP [M28]

Geoff reports that contrary to the note in the September N&O, HEP is still going strong on all frequencies. All four were logged, one after the other around 2315 UTC on 4th October.

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#### \* VOICE STATIONS \*

::: THE N N N STATION [E12, G12, V12, V18, M02]

The former NNN station was possibly the first multilingual station. Its marker consisted solely of the letter "N" sent in Morse Code, repeated slowly for five minutes. The station was on the air for sometime and is now inactive. Over the years it has appeared on many different frequencies at many different times. The station used four languages: English, Hungarian, French and either Yiddish or German - probably Yiddish, as the numbers used resemble Yiddish more than any other station. 1-2-3-4-5-6-7-8-90 in Yiddish is:

"eins zwei drei vier funf sechs siben acht neun null"

There is some doubt about whether some German numbers stations are in fact in Yiddish. It is difficult to say, one way or the other, just by listening to the numbers themselves. Similarly, certain Slavic language stations are difficult to identify positively as the numbers are so similar. One thing is certain: no German or Yiddish station uses the official pronunciation for number "2". The "zwei" sounds too much like the number "3" (drie) to be readily differentiated over shortwave so every station uses the word "zvo" or "svo" instead. In addition, many stations change certain numbers to improve the chances of being correctly received. For example, the number "5" (funf) is often said as "funnef". This makes it sound like the Yiddish number "5", so one has to be careful.

In the mid-80's the woman's voice used on the station was high-pitched, with a staccato delivery. The same woman was used for all three

languages. It seems strange that the operators of this set-up couldn't do better. It was hard not to laugh at her delivery, it was that bad. Around December, 1988, she was replaced but the change was barely an improvement. They went to the other extreme - a slow, lazy, laid-back sound, as though the woman was on powerful tranquillisers. This woman's voice was used till the end of NNN's transmissions. One other minor change occurred with the changeover: at the end of the French messages the old voice would say "fin". Now the word "finis" was used. The formats of the three different languages are identical. On the hour the CW "dah-dits" are sent until five minutes past when the woman announces the group count ("Groups 21, Groups 21") and then goes straight into the five figure text. The termination is either "end", "ende" or "finis". The mode used was mostly AM, although the upper sideband was usually enhanced.

<source: Simon Mason>

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::: DRUMS AND TRUMPETS FAMILY [S01, S02, X01, E01, M17]

- AIDA [S01] No info on this one. If you have some, please send me a copy for the column.

- DRUMS AND TRUMPETS [S02] & THE BUGLE [X01]

Another historic station with a remarkable interval signal was the 'Drums and Trumpet' station, most probably transmitting from former Yugoslavia.

Imagine a scene at a military funeral when the lone trumpeter sounds "The Last Post" and you will have some idea of the musical signal sent by this Serbo Croat language number station. This plaintive bugle sounds about an hour before the transmission of the spy messages begins. Just before the actual message starts a different signal is sent. This is played with drums and trumpets and is a very up-tempo military marching tune similar to those played before the beginning of a battle. The woman then announces (in Serbo-Croat) "Noma 12671, Gruppi 44; Noma 12671, Gruppi 44, and then goes into the five figure text, ending with the word "Krai". The Serbo-Croat figures are: "Jedno, Dva, Tri, Ctyri, Pet, Sest, Osm, Devet, Nula." The woman pronounces the numbers like this: Edno, Dva, Dree, Seti, Pet, Ses, Seden, Octen, Deda, Nula.

The station used three main frequencies: 4740, 5500 and 6675 kHz. Although it has also appeared on 8070 and 5600 kHz.

- READY, READY [E01]

This English language station would appear to be part of the same set-up as the "drums and trumpet" station in that the main

frequencies used are exactly the same: 4740 and 6675. The woman announcer tries very hard to sound British but unfortunately the letter "R" in "four" is rolled far too much to sound convincing. The broadcasts start with the woman repeating a five figure identifier. Identifiers noted:

10491 36511 35702 62794 43101 43473 69421 62467 10361 62683 62453  
62378 17682 70100 17462 45690 17399 45260 43381 15181 04397 15521  
43470 15371 40690 32684 43181 32831 15431

After the five figure identifier has been repeated for five minutes, the woman says the group count ("22, 22") then, "Ready, Ready" and goes into the five figure groups.

'Times and frequencies noted so far:

4740 - 2000, 2100, 2200

5695 - 2200

6515 - 2200

6655 - 2100

6675 - 2100, 2200 6935 - 2200

8070 - 2200, 2100

[Note: the station hasn't been logged for quite a while]

- M17

Mode MCW Constant carrier. Each message sent 3 times each on a different frequency. They do use the same triplets of frequencies for each time slot. Transmissions are Monthly 2 weekly or weekly, on week of each month basis. Either on the Hour, Hour+20 Hour+40 or Hour+30 Hour+50 Hour+70. Mainly on during the evening but have been heard at other times of the day.

Call	Preamble	Message	Ending
70832 R4 5 Seconds Dots	29 29 =	29x5f	VA

First 2 figures of header are schedule numbers.

Frequencies used

3410	3910	4270	4460	4740	5235	5695	5865	6290
6675	6935	7425	7790	8070	9050	9245	10470	kHz

Only known sked: Wednesday 2000 UTC, 3410/3910/4740 kHz

<sources: Simon Mason, Guy Denman>

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::: CHERRY RIPE [E04/E03A]

Simon Denneen <porbeagle@ozemail.com.au> supplied Cherry Ripe's complete broadcast schedule.

MON - FRI (Southern Pacific Local)  
SUN - FRI (UTC)

1000Z 20474//23461 USB  
1100Z 17499//23461 USB  
1200Z 17499//23461 USB  
1300Z 17499//22108 USB  
2200Z 17499//24644 USB  
2300Z 17499//22108 USB  
2400Z 17499//22108 USB  
0100Z 19884//21866 USB

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::: THREE NOTE ODDITY [G04]  
Hans-Friedrich's monthly analysis

03.10.99 2005Z 5.320 kHz (same frequencies as in September!!!)  
2035Z 5.320 kHz

07.10.99 2005Z  
2035Z 4.540 kHz Message : same as 03.10.99

Message : 62125 78545 33025 98545 75125 44125 95458 33014 77458 95214  
33258 12014 75458 96258 33654 45212 85452 33222 85412 33014  
11258 95458 00145 32125

= 24 groups

Analysis: Frequent groups : 33014 2x  
75458 2x  
95458 2x

First two figures :	Last three figures:
00145	12014
11258	33 2x
12014	33025
32125	32125
33014 2x	44
025	62
222	75
258	00145
654	45212
44125	95214
45212	33222
62125	11258

75125	33
75458 2x	96
78545	85412
85412	85452
452	75458 2x
95214	95 2x
95458 2x	78545
96258	98
98545	33654

History : Sommer 2005 2035 Winter 2105 2135  
 Check for pre-1999 schedules older N&O's  
 01/99 3415 3315  
 02/99 3905 3805  
 03/99 4520 4420  
 04/99 5310 5210  
 05/99 5570 5470  
 06/99 5720 5620  
 07/99 5680 5580  
 08/99 5730 5630  
 09/99 5320 5220  
 10/99 5320 5220

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::: RUSSIAN MILITARY and E10  
 On 24 August at 0100 UTC, a Russian military station interfered with E10 EZI's transmission at 9130 kHz. The Russian transmission resembles the ones heard on the 'Pip' station. Here is some of the text:

Liniya-43 ya Liniya-44 priyom (Line-43 here is Line-44 over)  
 Liniya-49 ya Liniya-44 Priyom (Line-49 here is Line-44 over)

Liniya-44 tried to call Liniya-43 and Liniya-49. There was probably a response from the latter because Liniya-44 asked "I receive you ..... [unreadable], how do you receive me?". Then "I don't receive you, repeat". After this, 44 continued sending calls to Liniya-49.

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::: CZECH STATION 2136  
 Still going strong on 2136 kHz, every Saturday and Sunday.

Frequency: 2136 kHz  
 Schedule : Saturday and Sunday only. 0700 and 1645 UTC. The station has been noted on other times and in the evening as well.  
 Callup : 9 tones (sounds like a telephone ringing)  
 Messages : Continuous counting from 50-59 by a YL, repeated again



and again from tape.

Counting : padesat 50  
padesat jedna 51  
padesat dva 52  
padesat tri 53  
padesat ctyri 54  
padesat pet 55  
padesat sest 56  
padesat sedm 57  
padesat osm 58  
padesat devet 59

I am still looking for schedules and a good recording. Anyone???

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::: CZECH STATION 1122

2136's sister station is a daily guest on 1122 kHz. Apart from the interval signal, the transmission is identical.

Frequency: 1122 kHz

Schedule : Czech daytime hours at h+10-12 and h+40-42.

Callup : None, the transmitter is just switched on and off.

Messages : Every 2 minutes long transmission consists of continuous counting from 50-59 by a YL, repeated again and again from tape.

Counting : padesat 50  
padesat jedna 51  
padesat dva 52  
padesat tri 53  
padesat ctyri 54  
padesat pet 55  
padesat sest 56  
padesat sedm 57  
padesat osm 58  
padesat devet 59

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::: SPRUCH [G20]

Andreas Erbe writes ''Though I never heard the station myself I know from recordings that these musical pieces used where not always used for the same Spruchnummer.''

Andreas also heard that the time group (Zeit) was actually the time when the message was prepared and not the broadcasting time. If anyone has more details, please drop me a line.

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::: ENGLISH MAN [E06]

Hans-Friedrich Dumrese took another look at Mike's Russian Man freq list and covers the English Man (E06) transmissions. The floor is yours, Hans-Friedrich!

Mon 261 93/12 2100 5810	Thu 176 94/09 2000 11410
Mon 283 95/01 2000 4527	Thu 217 94/08 2000 13420
Mon 283 95/04 2000 6923	Thu 439 94/11 2100 6920
Mon 531 99/08 2010 9225	Thu 572 94/04 2100 7966
Mon 531 99/09 2010 9225	Thu 572 94/07 2100 9071
Mon 597 94/04 2000 8140	Thu 572 94/08 2100 8070
Mon 597 94/05 1900 12160	Thu 821 95/06 1920 12210
Mon 597 94/05 2000 9245	Thu 872 95/06 2000 12170
Mon 597 94/07 2000 9075	Fri 458 95/05 1900 11139
Mon 597 94/08 2000 7890	Fri 501 93/08 1830 14620
Mon 597 94/08 2000 7890	Fri 562 93/08 2200 7633
Mon 597 94/12 1600 8038	Fri 572 94/01 2300 5875
Mon 597 95/04 1600 13423	Fri 572 94/02 2300 5875
Mon 628 96/01 2130 4470	Fri 572 94/03 2300 5875
Mon 628 96/02 2130 4630	Fri 572 94/04 2200 v6925
Mon 705 99/06 2013 12980	Fri 572 94/05 2200 6925
Mon 705 99/08 2000 12989	Fri 572-94/06 2200 v6925
Mon 705 99/09 2010 10839	Fri 572 94/07 2200 v6925
Mon 715 96/02 1910 v6860	Fri 572 94/08 2200 6925
Mon 715 96/02 2010 v5420	Fri 572 94/10 2200 4610
Mon 715 96/03 1910 v6860	Fri 572 94/10 2200 6912
Mon 715 96/03 2010 v5420	Fri 572 94/10 2300 5875
Mon 715 96/04 2010 v5420	Fri 572 94/11 2300 5875
Mon 947 94/02 2010 v 8074	Fri 572 94/12 2100 4576
Mon 947 94/03 2010 v 8074	Fri 572 94/12 2200 6917
Mon 947 94/04 2010 v 8074	Fri 572 95/01 2300 5871
Mon 947 94/05 2010 v 8074	Fri 572 95/01 2300 5875
Mon 947 94/06 2000 v10160	Fri 572 95/02 2200 6925
Mon 947 94/06 2010 v 8074	Fri 572 95/02 2200 6925
Mon 947 94/07 2010 v 8074	Fri 572 95/02 2300 5875
Mon 947 94/08 1910 v10160	Fri 572 95/02 2300 5875
Mon 947 94/08 2010 v 8074	Fri 572 95/03 2200 6925
Mon 947 94/09 1910 v10160	Fri 572 95/03 2300 v5875
Mon 947 94/09 2010 v 8074	Fri 572 95/04 2200 v6920
Mon 947 94/10 2010 v 8074	Fri 572 95/05 2200 6917
Mon 947 94/12 2010 v 8074	Fri 614 95/08 1730 12145
Mon 947 95/03 1910 v10160	Fri 761 95/06 1400 13475
Mon 947 95/04 1910 v10160	Fri 821 94/01 2020 5803
Mon 947 95/04 2010 v 8074	Fri 821 94/02 2020 5810
Mon 947 95/05 1910 v10160	Fri 821 94/02 2020 5802
Mon 947 95/05 2010 v 8074	Sat 273 94/12 1000 11470

Mon	947	95/06	2000	v10160	Sat	458	95/01	2000	5860
Mon	947	95/06	2010	v 8074	Sat	458	95/11	2000	5784
Mon	947	95/07	1910	v10160	Sat	572	94/11	2200	6925
Mon	947	95/07	2010	v 8074	Sat	572	95/02	2200	6925
Mon	947	95/08	1910	v10160	Sat	572	95/04	2200	6925
Mon	947	95/08	2010	v 8074	Sat	572	95/05	2200	6913
Mon	947	95/11	1910	v10160	Sat	614	95/04	1730	12146
Mon	947	95/11	2010	v 8074	Sat	729	94/08	1905	11050
Tue	235	94/04	2100	8140	Sun	458	95/08	1900	10621
Tue	235	94/08	2000	10440	Sun	458	95/05	1900	11136
Tue	235	94/08	2100	8140	Sun	458	95/07	1900	11493
Tue	235	94/10	2100	5820	Sun	458	95/08	1900	10621
Tue	235	95/09	2100	6940	Sun	458	95/09	1900	8140
Tue	395	94/06	1900	14395	Sun	458	95/10	1900	8136
Tue	395	94/07	1900	14395	Sun	458	95/10	2000	6845
Tue	395	94/07	2000	11395	Sun	597	95/06	1600	12116
Tue	395	94/08	1900	14395	Sun	597	95/04	1600	13423
Tue	395	94/08	2000	11395	Sun	597	95/07	1600	12116
Tue	475	93/12	2220	4475	Sun	597	94/10	1600	12208
Tue	475	94/09	2115	8140	Sun	682	96/01	1915	3810
Tue	475	94/11	2115	5375	Sun	729	93/10	2000	8160
Tue	475	94/11	2215	4475	Sun	729	94/06	1905	12150
Tue	620	94/08	2000	14620	Sun	729	94/07	1900	14620
Tue	620	94/09	2000	14620	Sun	729	94/07	1900	12190
Tue	628	96/02	2130	4630	Sun	729	94/07	1900	14620
Tue	715	96/01	2030	5423	Sun	729	94/08	1900	13578
Tue	761	97/04	1700	5820	Sun	729	94/10	2000	8160
Tue	947	94/06	1910	10162	Sun	838	94/02	1700	8135
Tue	947	94/06	2010	8074	Sun	980	96/01	2310	5418
Tue	947	94/08	1910	10169	Sun	982	94/05	1600	12130
Tue	947	94/08	2010	8074	Sun	982	94/08	1600	10180
Tue	947	94/09	1910	10162	Sun	982	94/08	1700	8020
Tue	947	95/06	1910	10156					
Tue	947	95/06	2010	8074					
Wed	235	94/06	2000	12200					
Wed	235	94/08	2000	10440					
Wed	235	94/08	2100	8140					
Wed	395	94/07	2000	11395					
Wed	738	94/08	1810	13390					
Wed	947	94/03	2010	8074					
Wed	947	94/05	2010	8074					
Wed	947	94/07	1910	10153					
Wed	947	94/07	2010	8074					
Wed	947	94/08	1910	10162					
Wed	947	94/08	2010	8074					
Wed	947	94/11	1910	10162					
Wed	947	94/11	2010	8074					
Wed	947	94/12	1910	10162					

Wed 947 95/02 1910	10162
Wed 947 95/02 2010	8074
Wed 947 95/04 1910	10162
Wed 947 95/04 2010	8074
Wed 947 95/05 1910	10162
Wed 947 95/05 2010	8074
Wed 947 95/06 1910	10172
Wed 947 95/06 2010	8074
Wed 947 95/07 1910	10162
Wed 947 95/12 2010	8074

What can we see:

- No change of time slots with beginning of Summer time.
- Longest sked observed was 947 with 22 month.
- Most SNs have a 1h repeat.
- Many SNs have also a repeat on the following day (or the following days) = 4 or 6 transmission times:

235 2000/2100Z	Tue Wed			
395 1000/2000Z	Tue Wed			
458 1900/2000Z			Fri Sat Sun	
572 2100/2200Z		Thu Fri Sat		
(2200/2300Z)				
597 1900/2000Z	Mon			Sun
614 1730Z			Fri Sat	
628 2130Z	Mon Tue			
715 1910/2010Z	Mon Tue			
729 1900/2000Z			Sat Sun	
821 1920/2020Z		Thu Fri		
947 1910/2010Z	Mon Tue Wed			

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\* VARIOUS MODES \*

::: XPH

Last month I included Bruce Allen's analysis. Bruce contacted me for a lengthy and rather technical additional comment. Interesting stuff Bruce. Thanks! Ok, over to Bruce in his own words.....

'I have to give credit and make a correction. Valeriano Martin [in N&O #10] pointed out to me that the tone I assigned to 'A' appeared to be used to double up ... i.e. 12344 would be the one tone, the two tone, the three tone, the four tone and the 'A'.

The only question becomes does it double the number before or the one after. i.e. 527A3 could be either 52773 or 52733. If there is traffic

with an A at the start of the 5 group it must double the next number, if it ever falls at the end it must double the previous. I have limited traffic to compare due to my bad reception site. I am designing a micro controller that would take a audio input and send serial data.

The other thing I am pursuing is that all the signals have strong 100, 150, and sometimes 200 HZ bands. Based on the assumption that this is 50hz power bleed through this gives rise to several areas of investigation.

First it gives a 'benchmark' to compare the tones against. From this can be derived which transmitter send the msg. I have noticed a couple of modulation anomalies that are repeatable and not on all transmissions.

This give rise to the other us of a benchmark freq. It's phase shift noise can be analyzed and corrected. This is assumed to be mostly atmospheric in nature and therefore affects all the tones equally. Then you go looking in the tones for unaccounted for phase shifts and assume they are one of two cases:

- a) Mechanical - some component phaseshifts 305 Hz 22 degrees and 500 Hz 17 degrees. This is the aggregate phase shift and is rarely the same on two different TX. It is easily identified because it is always the same - i.e. 22 degrees on every 305 Hz tone.
- b) Everything else ... meaning intentional phase shifted tones carrying data. This is called sub-channelling. It is usually phase compared with onsite freq. standards. For instance a cesium standard outputs 5 MHz and the tones are compared the phase data is regenerated.

I suspect this because when I FFT an aggregate of 1 tone I see anomalies in the sidebands that appears that at least one of those occurrences is phase shifted. The overall shape of the envelope reminds me of a QPSK signal.

Why do this? Well one of the old uses of sub-channeling was the row / column order. It was used with one time pads. [If the development of 1 times doesn't interest you, skip this section] The pads were 10x10 giving 100 character squares. each row and column had a 'key number' The Early pad were numbered 1,2,3.....,0. To decode you took took 2 numbers and applied them first one to row second to column and at the intersection was the Character. Then problem was that if a pad fell in the wrong hands the messages were all compromised. If you scramble the order of the key numbers {486012593 for instance} each use of the pad you had a more secure (in theory) system. The Germans {I think} used a two transmission method. The first message was the content message. The column key was similar. But no pad was needed to decode it. If my memory serves me right, the system was something like take the date number (i.e. 15 Oct. 1999 would use just the 15) and add it to the first two numbers of the message. You then counted off that many

numbers from the start and that was row 1 #. The number in the corresponding position in the next group was the row 2 #, until you had 20 numbers. The drawback was 2 transmission which double the exposure of the agent. The next development was to place the keys and message on top of each other (sub channeling). The first method was to leave a longer pause between numbers ... 1 5 3 7 45. The first time this happened the agent would write 7 in the first row. The pause would be sent with every occurrence of 7 from then on, just to through off analysis. This would continue until all the row digits were sent. Then the first row number was sent WITHOUT the pause. This signaled a switch to column numbers. The same processed followed. Finally the whole message was decoded.

If my theory holds then we may be able to get a new set of data from each transmission. If not, its been great fun fiddling with it anyway.

I am currently writing a Forth program to decode, identify anomalies into groups, and log phase changes vs time.

<Bruce Allen bruceallen@home.com>

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::: FAPSI RTTY INTERCEPTS

Freq.	UTC	to	link	remarks
-----	----	-----	-----	-----
7944	0030	U1K	00103	QSY 5208
8071	1848	USN	?	6-tone selcal + cw callup
8143	1830	DZR	00149	
9272	1630	KMI	00169	
10328	1520	BPA	00116	
10442	1540	VTX	00098	
10767	1500	BFR	00030	
11460	1620	URO	60047	
11637	0045	GMN	00119	
12087	0847		00107	
12172	1315	NXQ	00052	
12187	1420	NOB	70004	
12197	1620	DCW	60047	
12211	0930	RLX	40034	
12239	1500	RGA	00030	
13366	1730	POU	00190	
13433	0740		80061	
13450	0730		80061	
13451	2244	PSN	00126	
13452	2240	JMS	00127	
13556	2010	HZW	00117	

13850	1315	YOA	00052
14426	0930	RLX	40034
14434	1742	KRN	00178
14532	1100	SPK	00168
14532	1120	SPK	00168
14731	1515	BPA	00116
14843	2230	JMS	00127
14941	1810	WNY	00139
14980	1310	RAU	00070
16023	1554	PSN	00126
16023	1942	PSN	00126
16023	1906	PSN	00126
16152	1550	EZW42	60069
16156	1502	KMI	00169
16218	2000	HZW	00117
16223	0930	UXW	40034
16236	0720	RLJ	
16257	0835	RJA	90051
16277	1540	EWZ42	60069
16295	1550	DZR	00149
16302	0930	UGO	00079
16330	0950	UGO	00079
16345	0750	KMI	00169
17416	1735	KRN	00178
17423	1100		00166
17460	0930	ZND	10075
17463	1745	UDZ27	10163
17473	0915	UDZ27	10163
17519	1410	RCX81	30088
18048	1110	SPK	00168
18048	1150	SPK	00168
18048	1810	SPK	00168
18172	0835	URS	90051
18207	1245	DZR	00149
18210	1610	DZR	00149
18247	0930	RYS	10075
18332	0745	RPR	10042
18373	1500	UDZ21	00054
19088	1800	WNY	00139
19354	0800	RPO	80038
19415	1005	CAZ	50002
19875	1502	FBR	
19923	2314	PSN	00126
20340	0745	AVK	10042
20655	0550		30044
20741	1800	SPK	00168
20912	1030		00075
22865	2240	PSN	00126

noted with RTTY 186.5bd \*)

QSY 16156. Is FBR right? Or BFR?

\*) most likely the operator chose a wrong speed as normally 75bd is used on this link. I haven't seen any of these stations using this speed before.

-0-0-0-0-0-0-0-0-0-0-

★ LOGS SECTION ★

2136.0		Tones Count 51 to 59 AM 02/10/1999 Sat 1645 (ANUK)
2136.0		Tones count 51 to 50 AM 09/10/1999 Sat 1650 (ANUK)
2136.0		Tones Count 51 to 50 AM 10/10/1999 Sun 1647 (ANUK)
2136.0		Tones Count 51 to 50 Repeat 1653-1700 AM 16/10/1999 Sat 1645 (ANUK)
2136.0		Tones, Count 51 to 50 RR 0707 0712 AM 17/10/1999 Sun 0700 (ANUK)
2136.0		Czech station 9-tone callup + counting 50-59. USB 17/10/1999 Sun 0700 (AB)
2136.0		Czech station. 9-tone callup + counting 50-59 YL/Czech USB 24/10/1999 Sun 0700 (AB)
2136.0		Czech station. 9-tone callup + counting 50-59 YL/Czech USB 24/10/1999 Sun 1645 (AB)
2250.0	M51	French Intel/mil, msg nr 15. CW 28/10/1999 Thu 1855
2550.0	M51	French intel/mil, 5lg's. CW 27/10/1999 Wed 2115 (AB)
3195.0	R	Russian navy Ustinov. Channel mrkr. CW 26/10/1999 Tue 2148 (AB)
3195.0	R	Russian navy Ustinov, channel mrkr. CW 29/10/1999 Fri 2337 (AB)
3230.0	V02	AM 07/10/1999 Thu 0400 (LA)
3245.0	V02	VERY WEAK AM 10/10/1999 Sun 0200 (BUNKY)
3245.0	V02	AM 31/10/1999 Sun 0200 (BUNKY)
3245.0	V02a	14141 65341 50332. AM 03/10/1999 Sun 0200 (JM4)
3245.0	V02a	A 14141 65341 50332 AM 03/10/1999 Sun 0200 (JM4)
3270.0	E10a	VLB2 USB 04/10/1999 Mon 2345 (GG)
3270.0	E10a	weak USB 14/10/1999 Thu 2245 (GG)
3292.0	V02	AM 12/10/1999 Tue 0200 (BUNKY)
3292.0	V02a	A 14142 04431 50333 AM 05/10/1999 Tue 0200 (JM4)
3322.0	R	Russian Navy Ustinov channelmrkr. CW 15/10/1999 Fri 2210 (AB)
3322.0	R	Russian navy Ustinov. Channel mrkr, CW 26/10/1999 Tue 2149 (AB)
3322.0	R	Russian navy Ustinov, channel mrkr. CW 29/10/1999 Fri 2337 (AB)
3337.0	L	Russian navy St. Petersburg, channel mrkr. CW 29/10/1999 Fri 2335 (AB)
3389.0	V02	AM 12/10/1999 Tue 0100 (BUNKY)
3389.0	V02a	A 14142 04431 50333 AM 05/10/1999 Tue 0100 (JM4)
3389.0	V02a	A 98603 04433 65181



3410.0 M17 70569 26 26 = CW 06/10/1999 Wed 1900 (ANUK)  
3410.0 M17 70569 26 26 = CW 13/10/1999 Wed 1900 (ANUK)  
3410.0 M17 70529 23 23 = CW 20/10/1999 Wed 1900 (ANUK)  
3415.0 E10 ART 2 msgs: 96 SVTFN / ?? ????? USB 03/10/1999 Sun 0130  
(GG)  
3415.0 E10 ART 2 msgs: 96 SVTFN/88 PFU?G USB 05/10/1999 Tue 0130  
(GG)  
3485.0 E10a SYN2 USB 04/10/1999 Mon 2345 (GG)  
3663.0 5fgs signeb off after the final group. CW 28/10/1999  
Thu 1919 (AB)  
3756.0 XT The Pip, no msgs. CW 26/10/1999 Tue 1912 (AB)  
3756.0 XT The Pip, channel mrkr. CW 29/10/1999 Fri 2339 (AB)  
3757.0 XP Pip no msgs. CW 15/10/1999 Fri 2107 (AB)  
3840.0 E10 Isr. Intel. YHF msg. AM 16/10/1999 Sat 2100 (AB)  
3840.0 E10 Israeli intel, YHF + msg. AM 29/10/1999 Fri 2100 (AB)  
3926.0 V02 AM 31/10/1999 Sun 0100 (BUNKY)  
3927.0 V02a A 14141 65341 50332 AM 03/10/1999 Sun 0100 (JM4)  
3927.0 V02a 14141 65341 50332. AM 03/10/1999 Sun 0100 (JM4)  
3959.0 M51 French intel/mil, 5lgs. CW 27/10/1999 Wed 2117 (AB)  
3959.0 M51 French intel/mil, msg nr 16. CW 28/10/1999 Thu 1908  
4014.0 M03 038/54 1998 038/53 Different message CW 04/10/1999  
Mon 0630 (ANUK)  
4014.0 M03 035/00 CW 11/10/1999 Mon 0630 (ANUK)  
4015.0 DPQT Czech mil wkg HC8W + 5FGs CW 25/10/1999 Mon 2120 (AB)  
4015.0 M03 035/00 CW 18/10/1999 Mon 0630 (ANUK)  
4023.0 M51 5fgs in progress. CW 25/10/1999 Mon 2123 (AB)  
4024.0 VLDR Czech military cig J7VT + 5fg's. J7VT answers in same  
freq. CW 15/10/1999 Fri 2245 (AB)  
4027.0 M08 CW 08/10/1999 Fri 0300 (BUNKY)  
4027.0 M08 CW 17/10/1999 Sun 0300 (BUNKY)  
4030.0 V02 Spanish Lady YL/SS, very weak AM 11/10/1999 Mon 0600  
4035.0 V02a AM 06/10/1999 Wed 1105 (GW)  
4035.0 V02a AM 30/10/1999 Sat 1000 (GW)  
4035.5 M08a in progress CW 23/10/1999 Sat 0400 (JM4)  
4130 E15 ??? QRU 05/10/1999 Tue 1900 (HFD)  
4165.0 E10a MIW2 USB 14/10/1999 Thu 2315 (GG)  
4270.0 E10 PCD USB 03/10/1999 Sun 0034 (GG)  
4325.0 R Russian navy Ustinov. Channel mrkr. CW 26/10/1999 Tue  
2150 (AB)  
4330.0 V02 AM 06/10/1999 Wed 0400 (LA)  
4330.0 V02 Spanish Lady YL/SS - in progress, weak signal AM  
17/10/1999 Sun 1100 (LA)  
4360 E10 VLB2, //5629 10/10/1999 Sun 2045 (HFD)  
4360 E10 VLB2, //5629 12/10/1999 Tue 1745 (HFD)  
4360.0 E10 Israeli intel. VLB2. AM 28/10/1999 Thu 2145 (AB)  
4360.0 E10a VLB2 USB 04/10/1999 Mon 2345 (GG)  
4440.0 M51 NR 06 to NR CW 12/10/1999 Tue 0725 (ANUK)  
4450.0 M13 378 = 216 21 = CW 02/10/1999 Sat 2100 (ANUK)

4450.0 M13 378 = 206 23 = CW 16/10/1999 Sat 2100 (ANUK)  
 4460.0 E10 Isr. Intel. FTJ msg. AM 16/10/1999 Sat 2100 (AB)  
 4461.0 E10 FTJ 32 PNZCR USB 05/10/1999 Tue 0000 (GG)  
 4461.0 E10 FTJ (too weak to copy) USB 05/10/1999 Tue 0100 (GG)  
 4461.0 E10 FTJ 43 ULZHR USB 07/10/1999 Thu 0100 (GG)  
 4461.0 E10 FTJ ZTPEN USB 13/10/1999 Wed 0100 (GG)  
 4461.0 E10 FTJ very weak USB 23/10/1999 Sat 0300 (JM4)  
 4461.0 E10 FTJ 26 RGJXC USB 27/10/1999 Wed 2200 (GG)  
 4461.0 E10 FTJ (distorted) USB 28/10/1999 Thu 0000 (GG)  
 4461.0 E10a FTJ2 USB 01/10/1999 Fri 0000 (GG)  
 4461.0 E10a FTJ2 USB 01/10/1999 Fri 0100 (GG)  
 4479.0 V02a i/p mixing with M8a transmission AM 01/10/1999 Fri 0400  
 4490.0 M14A 263 408 71 263 519 70 CW 04/10/1999 Mon 1900 (ANUK)  
 4490.0 M14A 263 704 98 263 819 45 CW 11/10/1999 Mon 1900 (ANUK)  
 4495.0 M14A 263 418 90 263 797 51 CW 18/10/1999 Mon 1900 (ANUK)  
 4495.0 M51 French intel/mil?. 5lg msgs. CW 25/10/1999 Mon 1740  
 4495.0 M51 5lgs. CW 25/10/1999 Mon 2126 (AB)  
 4506.0 M08 CW 07/10/1999 Thu 0100 (BUNKY)  
 4506.0 M08 CW 17/10/1999 Sun 0300 (BUNKY)  
 4506.0 M08 CW 28/10/1999 Thu 0100 (BUNKY)  
 4526.0 M13 432 (R5) = 221 25 = 5fg =432 (X12) = 221 25 = 5fg. CW  
 29/10/1999 Fri 1930 (AB)  
 4530.0 G07 418x3 1 1639 47 AM 11/10/1999 Mon 2057 (ANUK)  
 4540 G04 same as 03.10.99 07/10/1999 Thu 2035 (HFD)  
 4540.0 G04 AM 07/10/1999 Thu 2005 (HFD)  
 4540.0 G04 62125 78545 33025. AM 07/10/1999 Thu 2035 (AK)  
 4540.0 G04 AM 10/10/1999 Sun 2045 (MH)  
 4540.0 G04 AM 13/10/1999 Wed 2035 (MH)  
 4540.0 G04 24x5F RR 1999-10-03 AM 17/10/1999 Sun 2005 (ANUK)  
 4540.0 G04 2MSGs AM 21/10/1999 Thu 2035 (MH)  
 4555 M45 555, //4955 28/10/1999 Thu 1802 (HFD)  
 4555.0 M45 555 235 235 36 36 = = L 04035 CW 05/10/1999 Tue 1802  
 (ANUK)  
 4555.0 M45 555 235 235 36 36 = = L 04035 CW 07/10/1999 Thu 1802  
 (ANUK)  
 4555.0 M45 555 235 235 36 36 - - L 04035 CW 12/10/1999 Tue 1802  
 (ANUK)  
 4555.0 M45 555x3 235 235 36 36 L 04035 CW 14/10/1999 Thu 1802  
 (ANUK)  
 4555.0 M45 555 235 235 36 36 = = L 04035 CW 19/10/1999 Tue 1802  
 (ANUK)  
 4560 E10 VLB, //5820 12/10/1999 Tue 1700 (HFD)  
 4560.0 E10 YHF? extremely weak USB 01/10/1999 Fri 0330 (JM4)  
 4560.0 E10 YHF weak USB 03/10/1999 Sun 0330 (JM4)  
 4560.0 E10 YHF weak. USB 03/10/1999 Sun 0330 (JM4)  
 4560.0 E10 YHF weak USB 09/10/1999 Sat 0330 (JM4)  
 4560.0 E10 Msg in progress. YL/EE 5lg. AM 22/10/1999 Fri 2250  
 4560.0 E10 New msg. YL/EE. 5lg. AM 22/10/1999 Fri 2300 (FVG)

4560.0 E10 YHF very weak USB 23/10/1999 Sat 0330 (JM4)  
 4560.0 E10 YHF (97)A\_\_LI USB 23/10/1999 Sat 0400 (JM4)  
 4589.0 G22 886 ? LSB 21/10/1999 Thu 2200 (JE)  
 4602.0 E07 886x3 1 /616 88 AM 04/10/1999 Mon 2140 (JE)  
 4620.0 M14A 560 348 97 560 129 45 CW 01/10/1999 Fri 1900 (ANUK)  
 4620.0 M14A 560 247 83 560 193 57 CW 08/10/1999 Fri 1900 (ANUK)  
 4620.0 M14A 560 823 97 560 719 48 CW 15/10/1999 Fri 1900 (ANUK)  
 4625.0 S28 Unusually weak in Vilnius. USB 18/10/1999 Mon 2200 (RP)  
 4625.0 S28 Also parallel on 9250. AM 23/10/1999 Sat 2300 (AE)  
 4625.0 X06 Buzzer, channel mkr. CW 29/10/1999 Fri 2341 (AB)  
 4635.0 E05 Rptg 943. Also up on 4640//5046. USB 30/09/1999 Thu 0000 (JM4)  
 4635.0 E05 //5812 rptg 943 Count 140 USB 01/10/1999 Fri 0000 (JM4)  
 4635.0 E05 //5812 rptg 943 Count 140 USB 04/10/1999 Mon 0000 (JM4)  
 4635.0 E05 //5812 AM 04/10/1999 Mon 0000 (BUNKY)  
 4635.0 E05 //5812 rptg 943 Count 140 USB 05/10/1999 Tue 0000 (JM4)  
 4635.0 E05 //5812 AM 06/10/1999 Wed 0000 (BUNKY)  
 4635.0 E05 //5812 AM 07/10/1999 Thu 0000 (BUNKY)  
 4635.0 E05 //5812 AM 08/10/1999 Fri 0000 (BUNKY)  
 4640.0 E05 //5046 rptg 115 Count 137 AM 01/10/1999 Fri 0000 (JM4)  
 4640.0 E05 //5046 rptg 115 Count 137 AM 02/10/1999 Sat 0000 (JM4)  
 4640.0 E05 //5046 AM 04/10/1999 Mon 0000 (BUNKY)  
 4640.0 E05 //5046 rptg 115 Count 137 AM 04/10/1999 Mon 0000 (JM4)  
 4640.0 E05 //5046 rptg 115 Count 137 AM 05/10/1999 Tue 0000 (JM4)  
 4640.0 E05 //5046 AM 06/10/1999 Wed 0000 (BUNKY)  
 4640.0 E05 //5046 AM 07/10/1999 Thu 0000 (BUNKY)  
 4640.0 E05 //5046 AM 08/10/1999 Fri 0000 (BUNKY)  
 4640.0 E05 //5046 rptg 115 Count 137 AM 09/10/1999 Sat 0000 (JM4)  
 4640.0 G04 62125 78545 33025. AM 07/10/1999 Thu 2005 (AK)  
 4640.0 G04 24x5f RR 1999-10-07 AM 10/10/1999 Sun 2005 (ANUK)  
 4640.0 G04 AM 13/10/1999 Wed 2005 (MH)  
 4640.0 G04 24x5F RR 1999-10-03 AM 14/10/1999 Thu 2000 (ANUK)  
 4641.0 E05 AM 06/10/1999 Wed 0000 (GW)  
 4665.0 E10 //5230 MIW2 USB 01/10/1999 Fri 0215 (JM4)  
 4665.0 E10 //6370 MIW2 USB 01/10/1999 Fri 0315 (JM4)  
 4665.0 E10 //5230 MIW2. USB 03/10/1999 Sun 0215 (JM4)  
 4665.0 E10 //5230 MIW2 USB 03/10/1999 Sun 0215 (JM4)  
 4665.0 E10 MIW2. USB 03/10/1999 Sun 0315 (JM4)  
 4665.0 E10 //5230 MIW2 USB 03/10/1999 Sun 0315 (JM4)  
 4665.0 E10 KPA2 on usual MIW frequency USB 13/10/1999 Wed 0215 (JM4)  
 4665.0 E10 KPA ZMN AM 22/10/1999 Fri 0018 (SG)  
 4665.0 E10 KPA2 USB 23/10/1999 Sat 0115 (JM4)  
 4665.0 E10 //6370 KPA2 USB 23/10/1999 Sat 0315 (JM4)  
 4665.0 E10a KPA2 USB 14/10/1999 Thu 2315 (GG)  
 4750.0 M52 Various Messages CW 04/10/1999 Mon 2015 (ANUK)  
 4750.0 M52 Messages CW 05/10/1999 Tue 0635 (ANUK)  
 4780 E10 SYN2, //6745, 5530 12/10/1999 Tue 1945 (HFD)

4780.0 E10 //5629 VLB2 USB 23/10/1999 Sat 0245 (JM4)  
 4780.0 E10 //6660 CI02 USB 23/10/1999 Sat 0345 (JM4)  
 4782.0 M10 555x3 619 29 071 32 CW 06/10/1999 Wed 2100 (ANUK)  
 4782.0 M10 555x3 249 161 071 40 Note long message CW 11/10/1999  
 Mon 2100 (ANUK)  
 4782.0 M10 555x3 249 161 071 40 CW 13/10/1999 Wed 2100 (ANUK)  
 4782.0 M10 555x3 719 14 071 48 CW 18/10/1999 Mon 2100 (ANUK)  
 4782.0 M10 555x3 619 14 071 48 CW 20/10/1999 Wed 2100 (ANUK)  
 4854.0 S21 454 235 235 36 36 AM 12/10/1999 Tue 1842 (ANUK)  
 4880.0 E10 YHF unreadable re CW QRM.. USB 03/10/1999 Sun 0330  
 (JM4)  
 4880.0 E10 YHF unreadable due to CW QRM USB 03/10/1999 Sun 0330  
 (JM4)  
 4880.0 E10 ??? weak USB 04/10/1999 Mon 0200 (JM4)  
 4880.0 E10 ULX 46 DQMJN USB 04/10/1999 Mon 0300 (GG)  
 4880.0 E10 ULX QRM from CW station USB 04/10/1999 Mon 0330 (JM4)  
 4880.0 E10 //6270 ULX (7?)LK\_\_Y USB 04/10/1999 Mon 0400 (JM4)  
 4880.0 E10 ULX 92 yCCwI (BC on same freq) USB 05/10/1999 Tue 0030  
 (GG)  
 4880.0 E10 ULX (jammed) USB 05/10/1999 Tue 0230 (GG)  
 4880.0 E10 ULX (covered by hissing signal) USB 07/10/1999 Thu 0230  
 (GG)  
 4880.0 E10 ULX weak USB 08/10/1999 Fri 0200 (JM4)  
 4880.0 E10 ULX weak USB 09/10/1999 Sat 0130 (JM4)  
 4880.0 E10 ULX 94 CJPCB USB 09/10/1999 Sat 0200 (GG)  
 4880.0 E10 ULX weak USB 09/10/1999 Sat 0200 (JM4)  
 4880.0 E10 ULX weak USB 09/10/1999 Sat 0330 (JM4)  
 4880.0 E10 //6270 ULX (71) LKNJ\_ USB 09/10/1999 Sat 0400 (JM4)  
 4880.0 E10 ULX weak USB 15/10/1999 Fri 0200 (JM4)  
 4880.0 E10 ULX (?)MAVKI USB 22/10/1999 Fri 0130 (JM4)  
 4880.0 E10 ULX USB 22/10/1999 Fri 0200 (JM4)  
 4880.0 E10 ULX (64)MWPGG USB 23/10/1999 Sat 0330 (JM4)  
 4880.0 E10 //6270 ULX2 USB 23/10/1999 Sat 0400 (JM4)  
 4880.0 E10 Israeli intel, ULX + msgs. AM 29/10/1999 Fri 2030 (AB)  
 4880.0 E10a ULX2 USB 01/10/1999 Fri 0030 (GG)  
 4900.0 M01B 302 ??? ??? 44 44 = = CW 21/10/1999 Thu 2032 (ANUK)  
 4954.0 S21 454 235 235 36 36 = = L 04035 AM 07/10/1999 Thu 1842  
 (ANUK)  
 4955 M45 555, //4555 28/10/1999 Thu 1802 (HFD)  
 4970.0 M14A 362 745 88 362 190 53 CW 20/10/1999 Wed 1900 (ANUK)  
 4975.0 M14A 362 417 90 362 898 51 CW 06/10/1999 Wed 1900 (ANUK)  
 4981.0 E05 //5906. Id 615, Count 153. USB 02/10/1999 Sat 1800 (CS)  
 4990.0 M01B 298 739 739 44 44 = = L 07043 CW 11/10/1999 Mon 2010  
 (ANUK)  
 5017 M01 463 12/10/1999 Tue 2000 (HFD)  
 5017 M01A 463 28/10/1999 Thu 2000 (HFD)  
 5018.0 M01 463 237 237 30 30 = = CW 05/10/1999 Tue 2000 (ANUK)  
 5018.0 M01 463 138 138 44 44 = = CW 07/10/1999 Thu 2000 (ANUK)

5018.0 M01 453 742 742 43 43 = = CW 14/10/1999 Thu 2000 (ANUK)  
5018.0 M01 463 459 459 42 42 = = CW 19/10/1999 Tue 2000 (ANUK)  
5018.0 M12 463 305 305 37 37 = = CW 21/10/1999 Thu 2000 (ANUK)  
5019.0 M10E 66386 20 96437 16 43537 18 64714 19  
5027.0 M10 In progress. CW 25/10/1999 Mon 2110 (AB)  
5046.0 E05 //4640 rptg 115 Count 137 AM 01/10/1999 Fri 0000 (JM4)  
5046.0 E05 //4640 rptg 115 Count 137  
5046.0 E05 //4640 rptg 115 Count 137 AM 04/10/1999 Mon 0000 (JM4)  
5046.0 E05 Counting station. USB 04/10/1999 Mon 0000 (HH)  
5046.0 E05 //4640 AM 04/10/1999 Mon 0000 (BUNKY)  
5046.0 E05 //4640 rptg 115 Count 137 AM 05/10/1999 Tue 0000 (JM4)  
5046.0 E05 //4640 AM 06/10/1999 Wed 0000 (BUNKY)  
5046.0 E05 //4640 AM 07/10/1999 Thu 0000 (BUNKY)  
5046.0 E05 //4640 AM 08/10/1999 Fri 0000 (BUNKY)  
5046.0 E05 //4640 rptg 115 Count 137 AM 09/10/1999 Sat 0000 (JM4)  
5050.0 M03 040/00 CW 04/10/1999 Mon 0700 (ANUK)  
5050.0 M03 040/00 CW 11/10/1999 Mon 0700 (ANUK)  
5050.0 M03 040/00 CW 18/10/1999 Mon 0700 (ANUK)  
5090.0 M03 040/00 CW 01/10/1999 Fri 0800 (ANUK)  
5090.0 M03 041/00 CW 08/10/1999 Fri 0800 (ANUK)  
5090.0 M03 041/00 CW 15/10/1999 Fri 0800 (ANUK)  
5090.0 M03 041/00 CW 22/10/1999 Fri 0800 (ANUK)  
5091.0 E10 JSR 2 msgs 102 ?????/? ???? USB 01/10/1999 Fri 1630 (GG)  
5091.0 E10 JSR 56 EFGMB USB 05/10/1999 Tue 1830 (GG)  
5091.0 E10 JSR 56 EFGMB USB 08/10/1999 Fri 1830 (GG)  
5091.0 E10 JSR 116 WBXVS USB 11/10/1999 Mon 1700 (GG)  
5091.0 E10 JSR 51 KTWVI USB 11/10/1999 Mon 1800 (GG)  
5116.0 M08 CW 08/10/1999 Fri 0200 (BUNKY)  
5117.0 M12 416x3 000 CW 03/10/1999 Sun 2000 (ANUK)  
5117.0 M12 416x3 000 CW 10/10/1999 Sun 2000 (ANUK)  
5117.0 M12 416x3 000 CW 17/10/1999 Sun 2000 (ANUK)  
5120.0 M03 041/00 CW 08/10/1999 Fri 0730 (ANUK)  
5120.0 M03 211/00 CW 12/10/1999 Tue 0815 (ANUK)  
5120.0 M03 211/00 CW 19/10/1999 Tue 0815 (ANUK)  
5154.0 M21 Russian Air Defense. BT99T158??8?????. CW 26/10/1999 Tue 2155 (AB)  
5154.0 R Russian navy Ustinov. Channel mkr. CW 26/10/1999 Tue 2155 (AB)  
5170.0 E10 //6658 KPA2 USB 01/10/1999 Fri 0115 (JM4)  
5170.0 E10 //6658 KPA2 USB 01/10/1999 Fri 0315 (JM4)  
5170.0 E10 //6658 KPA2 USB 02/10/1999 Sat 0115 (JM4)  
5170.0 E10 //6658 KPA2. USB 03/10/1999 Sun 0115 (JM4)  
5170.0 E10 //6658 KPA2 USB 03/10/1999 Sun 0115 (JM4)  
5170.0 E10 KPA2. USB 03/10/1999 Sun 0315 (JM4)  
5170.0 E10 //6658 KPA2 USB 03/10/1999 Sun 0315 (JM4)  
5170.0 E10 //6658 KPA2 USB 04/10/1999 Mon 0115 (JM4)  
5170.0 E10 //6658 KPA2 USB 04/10/1999 Mon 0215 (JM4)

5170.0 E10 //6658 KPA2 USB 04/10/1999 Mon 0315 (JM4)  
5170.0 E10 //6658 KPA2 USB 05/10/1999 Tue 0015 (JM4)  
5170.0 E10 //6658 KPA2 USB 06/10/1999 Wed 0115 (JM4)  
5170.0 E10 //6658 KPA2 USB 08/10/1999 Fri 0115 (JM4)  
5170.0 E10 //6658 KPA2 USB 09/10/1999 Sat 0015 (JM4)  
5170.0 E10 //6658 KPA2 USB 09/10/1999 Sat 0115 (JM4)  
5170.0 E10 //6658 KPA2 USB 09/10/1999 Sat 0315 (JM4)  
5220 G04 82125 78545 33025. .. (24 gr) 03/10/1999 Sun 2035  
5220.0 G04 24x5F Same frequency as September AM 03/10/1999 Sun  
2035 (ANUK)  
5220.0 G04 62125 78545 33025. AM 03/10/1999 Sun 2035 (AK)  
5220.0 M01B 719 258 258 48 48 = = L 06043 CW 20/10/1999 Wed 1718  
(ANUK)  
5230.0 E10 MIW2 USB 01/10/1999 Fri 0115 (JM4)  
5230.0 E10 //4665 MIW2 USB 01/10/1999 Fri 0215 (JM4)  
5230.0 E10 MIW2 USB 02/10/1999 Sat 0115 (JM4)  
5230.0 E10 MIW2. USB 03/10/1999 Sun 0115 (JM4)  
5230.0 E10 MIW2 USB 03/10/1999 Sun 0115 (JM4)  
5230.0 E10 //4665 MIW2. USB 03/10/1999 Sun 0215 (JM4)  
5230.0 E10 //4665 MIW2 USB 03/10/1999 Sun 0215 (JM4)  
5230.0 E10 MIW2. USB 03/10/1999 Sun 0315 (JM4)  
5230.0 E10 //4665 MIW2 USB 03/10/1999 Sun 0315 (JM4)  
5230.0 E10 MIW2 USB 04/10/1999 Mon 0115 (JM4)  
5230.0 E10 //6370 MIW2 USB 04/10/1999 Mon 0315 (JM4)  
5230.0 E10 MIW2 USB 05/10/1999 Tue 0015 (JM4)  
5230.0 E10 MIW2 USB 05/10/1999 Tue 0115 (JM4)  
5230.0 E10 MIW2 USB 06/10/1999 Wed 0115 (JM4)  
5230.0 E10 MIW2 USB 08/10/1999 Fri 0115 (JM4)  
5230.0 E10 MIW2 USB 09/10/1999 Sat 0015 (JM4)  
5230.0 E10 MIW2 USB 09/10/1999 Sat 0115 (JM4)  
5230.0 E10 MIW2 USB 09/10/1999 Sat 0215 (JM4)  
5230.0 E10 //6370 MIW2 USB 09/10/1999 Sat 0315 (JM4)  
5243.0 G07 418x3 1 1639 47 Call was for 18 minutes AM 11/10/1999  
Mon 2030 (ANUK)  
5245.0 G07 418x3 000 AM 04/10/1999 Mon 2020 (JE)  
5306.0 M52 30:883525x3 AR CW 03/10/1999 Sun 2100 (JE)  
5306.0 M52 30:883525x3 AR. CW 03/10/1999 Sun 2100 (JE)  
5306.0 M56 30 : 878225x3 AR CW 03/10/1999 Sun 1958 (ANUK)  
5320 G04 62125 78545 33025. .. (24 gr) 03/10/1999 Sun 2005  
5320.0 G04 24x5F Same frequency as September AM 03/10/1999 Sun  
2005 (ANUK)  
5320.0 G04 62125 78545 33025. AM 03/10/1999 Sun 2005 (AK)  
5320.0 G04 Same freq's as Sep/99 AM 03/10/1999 Sun 2005 (HFD)  
5320.0 M51 French intel/mil, msg nr 57. CW 26/10/1999 Tue 1900  
5360.0 M03 040/00 CW 06/10/1999 Wed 0830 (ANUK)  
5365.0 M03 040/00 CW 08/10/1999 Fri 0730 (ANUK)  
5365.0 M03 040/00 CW 15/10/1999 Fri 0730 (ANUK)  
5365.0 M03 040/00 CW 22/10/1999 Fri 0730 (ANUK)

5390.0 M29 New frequency. Same as 1998 CW 03/10/1999 Sun 1900 (ANUK)  
 5390.0 M29 VDE 43x2 12x2 4x2 1900x2 Repeat Daily CW 04/10/1999 Mon 1900 (ANUK)  
 5390.0 M29 VDE 76x2 15x2 11x2 1900x2 Repeat Daily CW 11/10/1999 Mon 1900 (ANUK)  
 5413.0 M13 411 = 206 23 = CW 02/10/1999 Sat 2030 (ANUK)  
 5413.0 M13 411 = 206 23 = CW 16/10/1999 Sat 2030 (ANUK)  
 5415.0 V02 Spanish Lady YL/SS, in progress AM 11/10/1999 Mon 0700  
 5416.0 M08 CW 29/10/1999 Fri 0200 (BUNKY)  
 5419.0 M08 CW 09/10/1999 Sat 0200 (BUNKY)  
 5419.0 M08 CW 14/10/1999 Thu 0300 (BUNKY)  
 5419.0 M08 CW 30/10/1999 Sat 0200 (BUNKY)  
 5435.0 E10 ART 2 msgs: 96 SVTFN/?? ????? USB 01/10/1999 Fri 0130 (GG)  
 5435.0 E10 ART QRN from data station USB 01/10/1999 Fri 0130 (JM4)  
 5435.0 E10 ART w/2 messages covered QRM USB 02/10/1999 Sat 0130 (JM4)  
 5435.0 E10 ART weak USB 03/10/1999 Sun 0130 (JM4)  
 5435.0 E10 ART weak. USB 03/10/1999 Sun 0130 (JM4)  
 5435.0 E10 ART2. USB 03/10/1999 Sun 0300 (JM4)  
 5435.0 E10 ART2 USB 03/10/1999 Sun 0300 (JM4)  
 5435.0 E10 ART USB 04/10/1999 Mon 0130 (JM4)  
 5435.0 E10 ART w/QRM from data station USB 05/10/1999 Tue 0130  
 5435.0 E10 ART 2 msgs: 96 SVTFN/88 PF??? USB 07/10/1999 Thu 0130 (GG)  
 5435.0 E10 ART w/QRM USB 09/10/1999 Sat 0130 (JM4)  
 5435.0 E10 ART2 USB 09/10/1999 Sat 0300 (JM4)  
 5435.0 E10 ART covered by data USB 13/10/1999 Wed 0130 (JM4)  
 5435.0 E10 ART (75)NZM\_\_ (49)SDRGD USB 15/10/1999 Fri 0130 (JM4)  
 5435.0 E10 ART USB 19/10/1999 Tue 0130 (JM4)  
 5435.0 E10 ART USB 22/10/1999 Fri 0130 (JM4)  
 5435.0 E10 ART 2 mess - covered by data QRM USB 23/10/1999 Sat 0130 (JM4)  
 5435.0 E10 ART2 USB 23/10/1999 Sat 0300 (JM4)  
 5437.0 E10 ART 144 PDPDM USB 06/10/1999 Wed 2330 (GG)  
 5441.0 M01B 271 739 739 44 44 = = CW 08/10/1999 Fri 2102 (ANUK)  
 5441.0 M10B In progress. 5fgs ends with = = 917 917 41 41. CW 29/10/1999 Fri 2106 (AB)  
 5474 M01 463 277/41 12/10/1999 Tue 1800 (HFD)  
 5474.0 M01 463 192 192 30 30 = = CW 05/10/1999 Tue 1800 (ANUK)  
 5474.0 M01 463 809 809 809 43 43 = = CW 07/10/1999 Thu 1800 (ANUK)  
 5474.0 M01 463 377 377 41 41 = = L 12040 CW 12/10/1999 Tue 1800 (ANUK)  
 5474.0 M01 463 452 452 47 47 = = CW 14/10/1999 Thu 1800 (ANUK)  
 5474.0 M01 463 106 106 45 45 = = L 19044 CW 19/10/1999 Tue 1800 (ANUK)  
 5474.0 M01 463 668 668 40 40 = = CW 21/10/1999 Thu 1800 (ANUK)

5530 E10 SYN2, //6745, 4780 12/10/1999 Tue 1945 (HFD)  
5530.0 E10 SYN2 USB 01/10/1999 Fri 0145 (JM4)  
5530.0 E10 //6745 SYN2 USB 01/10/1999 Fri 0345 (JM4)  
5530.0 E10 //6745 SYN2 USB 03/10/1999 Sun 0345 (JM4)  
5530.0 E10 //6745 SYN2. USB 03/10/1999 Sun 0345 (JM4)  
5530.0 E10 SYN2 USB 04/10/1999 Mon 0145 (JM4)  
5530.0 E10 //6745 SYN2 USB 04/10/1999 Mon 0345 (JM4)  
5530.0 E10 SYN2 USB 05/10/1999 Tue 0145 (JM4)  
5530.0 E10 SYN2 USB 09/10/1999 Sat 0145 (JM4)  
5530.0 E10 //6745 SYN2 USB 09/10/1999 Sat 0345 (JM4)  
5530.0 E10 MIW2 USB 23/10/1999 Sat 0115 (JM4)  
5530.0 E10 MIW2 USB 23/10/1999 Sat 0315 (JM4)  
5608.0 M01 463 218 218 43 43 = = CW 17/10/1999 Sun 0700 (ANUK)  
5629 E10 VLB2, //4360 10/10/1999 Sun 2045 (HFD)  
5629 E10 VLB2, //4360 12/10/1999 Tue 1745 (HFD)  
5629.0 E10 VLB2 USB 01/10/1999 Fri 0145 (JM4)  
5629.0 E10 VLB2 USB 01/10/1999 Fri 0245 (JM4)  
5629.0 E10 VLB2 USB 01/10/1999 Fri 0345 (JM4)  
5629.0 E10 VLB2 USB 03/10/1999 Sun 0145 (JM4)  
5629.0 E10 VLB2 USB 03/10/1999 Sun 0145 (JM4)  
5629.0 E10 VLB2. USB 03/10/1999 Sun 0245 (JM4)  
5629.0 E10 VLB2 USB 03/10/1999 Sun 0245 (JM4)  
5629.0 E10 VLB2. USB 03/10/1999 Sun 0345 (JM4)  
5629.0 E10 VLB2 USB 03/10/1999 Sun 0345 (JM4)  
5629.0 E10 VLB2 USB 04/10/1999 Mon 0145 (JM4)  
5629.0 E10 //10352 CI02 USB 04/10/1999 Mon 0245 (JM4)  
5629.0 E10 VLB2 USB 04/10/1999 Mon 0345 (JM4)  
5629.0 E10 VLB2 USB 09/10/1999 Sat 0145 (JM4)  
5629.0 E10 //10352 CI02 USB 09/10/1999 Sat 0245 (JM4)  
5629.0 E10 VLB2 USB 09/10/1999 Sat 0345 (JM4)  
5629.0 E10 VLB2 USB 13/10/1999 Wed 0145 (JM4)  
5629.0 E10 VLB2 USB 15/10/1999 Fri 0145 (JM4)  
5629.0 E10 YL/EE. Victor-Lima-Bravo-2. Jammer till 1715z. AM  
17/10/1999 Sun 1705 (FVG)  
5629.0 E10 VLB2 USB 19/10/1999 Tue 0145 (JM4)  
5629.0 E10 VLB2 USB 22/10/1999 Fri 0145 (JM4)  
5629.0 E10 VLB2 USB 23/10/1999 Sat 0145 (JM4)  
5629.0 E10 VLB2 USB 23/10/1999 Sat 0345 (JM4)  
5629.0 E10 VLB2 USB 28/10/1999 Thu 0145 (JM4)  
5629.0 E10a VLB2 USB 04/10/1999 Mon 2345 (GG)  
5629.0 E10a VLB2 USB 08/10/1999 Fri 1545 (GG)  
5629.0 E10a VLB2 USB 14/10/1999 Thu 2245 (GG)  
5746 E03 70125, //8464, 6485 06/10/1999 Wed 1900 (HFD)  
5746.0 E03 id 70125 USB 08/10/1999 Fri 2200 (GG)  
5758.0 M08 CW 08/10/1999 Fri 0300 (BUNKY)  
5762.0 V02 AM 02/10/1999 Sat 0200 (BUNKY)  
5762.0 V02a barely audible AM 09/10/1999 Sat 0200 (JM4)  
5762.0 V02a A 46933 65102 95402 AM 23/10/1999 Sat 0200 (JM4)



5810.0 G07 418x3 000 AM 04/10/1999 Mon 2010 (ANUK)  
5810.0 M29 New frequency. Same as 1998 CW 02/10/1999 Sat 1700 (ANUK)  
5810.0 M29 VDE 43x2 12x2 4x2 1900x2 CW 04/10/1999 Mon 1700 (ANUK)  
5810.0 M29 VDE 76x2 15x2 11x2 1900x2 Repeat Daily CW 11/10/1999 Mon 1700 (ANUK)  
5810.0 M29 VDE 43x2 12x2 18x2 1900x2 CW 18/10/1999 Mon 1700 (ANUK)  
5812 G07 418 418 418 1 18/10/1999 Mon 2010 (HFD)  
5812.0 E05 //4635 rptg 943 Count 140 USB 01/10/1999 Fri 0000 (JM4)  
5812.0 E05 //4635 rptg 943 Count 140 USB 02/10/1999 Sat 0000 (JM4)  
5812.0 E05 Heavily jammed on 5812. Also heard on parallel freqs. 4635, 4640, and 5046 USB. USB 03/10/1999 Sun 0025 (MV)  
5812.0 E05 //4635 rptg 943 Count 140 USB 04/10/1999 Mon 0000 (JM4)  
5812.0 E05 //4635 AM 04/10/1999 Mon 0000 (BUNKY)  
5812.0 E05 //4635 rptg 943 Count 140 USB 05/10/1999 Tue 0000 (JM4)  
5812.0 E05 //4635 AM 06/10/1999 Wed 0000 (BUNKY)  
5812.0 E05 //4635 AM 07/10/1999 Thu 0000 (BUNKY)  
5812.0 E05 //4635 AM 08/10/1999 Fri 0000 (BUNKY)  
5812.0 E05 //4635 rptg 943 Count 140 USB 09/10/1999 Sat 0000 (JM4)  
5814.0 G07 418x3 1 1639 47 AM 11/10/1999 Mon 2010 (ANUK)  
5814.0 G07 418x3 000 AM 25/10/1999 Mon 2010 (JE)  
5814.0 M24 891 273 273 145 145 Fast 40 WPM CW 05/10/1999 Tue 0830 (ANUK)  
5815.0 G07 418x3 1 1639 147 AM 18/10/1999 Mon 2010 (ANUK)  
5820 E10 VLB, //4560 12/10/1999 Tue 1700 (HFD)  
5823.0 E06 REPEATING 886,000 AM 11/10/1999 Mon 0021 (SG)  
5823.0 E06 886,000 repeated off at 21.15 v.strong signal in the uk AM 25/10/1999 Mon 0021 (SG)  
5824.0 E07 886x3 1 /616 88 AM 04/10/1999 Mon 2120 (JE)  
5830.0 M03 287/00 Repeat Daily CW 04/10/1999 Mon 1630 (ANUK)  
5830.0 M03 010/54 CW 08/10/1999 Fri 0830 (ANUK)  
5830.0 M03 287/00 Repeat Daily CW 10/10/1999 Sun 1630 (ANUK)  
5830.0 M29 VDE 52x2 34x2 4x2 0800x2 CW 04/10/1999 Mon 0600 (ANUK)  
5830.0 M29 VDE 52x2 34x2 4x2 0800x2 CW 04/10/1999 Mon 1200 (ANUK)  
5830.0 M29 VDE 96x2 31x2 11x2 0800x2 RR 1200 & Tuesday CW 11/10/1999 Mon 0600 (ANUK)  
5830.0 M29 VDE 37x2 33x2 18x2 0800x2 RR Tuesday CW 18/10/1999 Mon 0600 (ANUK)  
5860.0 M03 743/00 CW 05/10/1999 Tue 0800 (ANUK)  
5930.0 M29 Assumed frequency. S9+40 BC QRM CW 04/10/1999 Mon 0630 (ANUK)  
5946 M10 555 571 17 532 26 049 16 435 34 571 27/10/1999 Wed 1630 (HFD)  
5946.0 M10 571 17 275 49 049 50 435 28 CW 02/10/1999 Sat 1630 (ANUK)  
5946.0 M10 571 17 275 49 049 50 435 28 CW 04/10/1999 Mon 1630 (ANUK)  
5946.0 M10 571 26 275 40 049 31 435 26 CW 09/10/1999 Sat 1630

(ANUK)

5946.0 M10 571 26 275 40 049 31 435 26 CW 10/10/1999 Sun 1630  
(ANUK)

5946.0 M10 RR Sunday 1999-10-10 CW 11/10/1999 Mon 1630 (ANUK)

5946.0 M10 571 48 275 21 049 41 435 20 CW 16/10/1999 Sat 1630  
(ANUK)

6210.0 M03 214/00 CW 06/10/1999 Wed 0900 (ANUK)

6210.0 M03 214/00 CW 20/10/1999 Wed 0900 (ANUK)

6258.0 M01 463 156 156 34 34 = = CW 09/10/1999 Sat 1500 (ANUK)

6258.0 M01 463 725 725 44 44 = = CW 16/10/1999 Sat 1500 (ANUK)

6259.0 M01 463 108 108 40 40 = = CW 02/10/1999 Sat 1500 (ANUK)

6270.0 E10 //7760 ULX (34)HIHKZ USB 01/10/1999 Fri 0100 (JM4)

6270.0 E10 ULX 71 LKNjY USB 01/10/1999 Fri 0400 (GG)

6270.0 E10 ULX?? extremely weak USB 01/10/1999 Fri 0400 (JM4)

6270.0 E10 //7760 ULX USB 02/10/1999 Sat 0100 (JM4)

6270.0 E10 //7760 ULX USB 03/10/1999 Sun 0100 (JM4)

6270.0 E10 ULX 34 HIHKZ USB 03/10/1999 Sun 0100 (GG)

6270.0 E10 //7760 ULX. USB 03/10/1999 Sun 0100 (JM4)

6270.0 E10 //7760 ULX (34)HIHKZ USB 04/10/1999 Mon 0100 (JM4)

6270.0 E10 //4880 ULX (7?)LK\_Y USB 04/10/1999 Mon 0400 (JM4)

6270.0 E10 ULX 71 LKNJY USB 04/10/1999 Mon 0400 (GG)

6270.0 E10 //7760 ULX USB 05/10/1999 Tue 0100 (JM4)

6270.0 E10 //7760 ULX (?8)\_IHK0 USB 06/10/1999 Wed 0100 (JM4)

6270.0 E10 ULX 71 LKNJY USB 06/10/1999 Wed 0400 (GG)

6270.0 E10 ULX 33 YXWSV USB 07/10/1999 Thu 0130 (GG)

6270.0 E10 //7760 ULX USB 08/10/1999 Fri 0100 (JM4)

6270.0 E10 //7760 ULX USB 09/10/1999 Sat 0100 (JM4)

6270.0 E10 //4880 ULX (71) LKNJ\_ USB 09/10/1999 Sat 0400 (JM4)

6270.0 E10 ULX 71 LKNJY USB 09/10/1999 Sat 0400 (GG)

6270.0 E10 ULX 23 HHFGA USB 09/10/1999 Sat 0430 (GG)

6270.0 E10 ULX 55 RCYkI USB 09/10/1999 Sat 0500 (GG)

6270.0 E10 43 HSRMA USB 11/10/1999 Mon 0500 (GG)

6270.0 E10 89 USB 11/10/1999 Mon 0500 (GG)

6270.0 E10 ULX 76 TZJEG USB 11/10/1999 Mon 1830 (GG)

6270.0 E10 ULX 74 UOFSG USB 11/10/1999 Mon 1930 (GG)

6270.0 E10 ULX 76 TZJEG USB 12/10/1999 Tue 1830 (GG)

6270.0 E10 //7760 weak USB 13/10/1999 Wed 0100 (JM4)

6270.0 E10 //7760 ULX USB 15/10/1999 Fri 0100 (JM4)

6270.0 E10 //7760 ULX USB 20/10/1999 Wed 0100 (JM4)

6270.0 E10 //7760 ULX (69)AABOP USB 23/10/1999 Sat 0100 (JM4)

6270.0 E10 //4880 ULX2 USB 23/10/1999 Sat 0400 (JM4)

6270.0 E10 ULX 2 msgs: 24 ZVENK/5 KESHJ USB 28/10/1999 Thu 0500  
(GG)

6270.0 E10 ULX USB 28/10/1999 Thu 1600 (GG)

6270.0 E10a ULX2 USB 11/10/1999 Mon 0400 (GG)

6270.0 E10a ULX2 USB 11/10/1999 Mon 0530 (GG)

6270.0 E10a ULX2 USB 28/10/1999 Thu 0530 (GG)

6283.0 M01B 382 584 584 44 44 = = L 17043 CW 07/10/1999 Thu 1723

(ANUK)

6283.0	M01B	584 584 44 44 = = CW 21/10/1999 Thu 1723 (ANUK)
6330.0	M03	976/00 CW 11/10/1999 Mon 0900 (ANUK)
6330.0	M03	976/00 CW 18/10/1999 Mon 0900 (ANUK)
6370.0	E10	//4665 MIW2 USB 01/10/1999 Fri 0315 (JM4)
6370.0	E10	//5230 MIW2 USB 04/10/1999 Mon 0315 (JM4)
6370.0	E10	//5230 MIW2 USB 09/10/1999 Sat 0315 (JM4)
6370.0	E10	KPA ZMN AM 22/10/1999 Fri 0018 (SG)
6370.0	E10	KPA2 USB 23/10/1999 Sat 0215 (JM4)
6370.0	E10	//4665 KPA2 USB 23/10/1999 Sat 0315 (JM4)
6370.0	E10	KPA2 USB 23/10/1999 Sat 2216 (MH)
6370.0	E10a	KPA2 USB 14/10/1999 Thu 2315 (GG)
6379.0	M22	4XZ marker CW 01/10/1999 Fri 0150 (JM4)
6379.0	M22	//10356//14649 4XZ in tfc CW 02/10/1999 Sat 0100 (JM4)
6379.0	M22	//10356//14649 4XZ marker CW 03/10/1999 Sun 0120 (JM4)
6379.0	M22	//10356//14649 4XZ mrkr. CW 03/10/1999 Sun 0120 (JM4)
6379.0	M22	//14649 4XZ marker CW 04/10/1999 Mon 0040 (JM4)
6379.0	M22	//10356//14649 4XZ marker CW 05/10/1999 Tue 0020 (JM4)
6379.0	M22	//10356//14649 4XZ marker CW 06/10/1999 Wed 0120 (JM4)
6379.0	M22	//10356//14649 4XZ in tfc CW 08/10/1999 Fri 0120 (JM4)
6379.0	M22	//10356//14649//18482 4XZ marker CW 09/10/1999 Sat 0020 (JM4)
6379.0	M22	//10356//14649 4XZ in tfc CW 15/10/1999 Fri 0100 (JM4)
6379.0	M22	//10356//14649 4XZ marker CW 19/10/1999 Tue 0145 (JM4)
6379.0	M22	//10356 4XZ marker CW 23/10/1999 Sat 0000 (JM4)
6379.0	M22	//10356//14649//18482 4XZ in tfc CW 27/10/1999 Wed 2300 (JM4)
6430.0	M03	552/00 CW 15/10/1999 Fri 0930 (ANUK)
6485	E03	70125, //8464, 5746 06/10/1999 Wed 1900 (HFD)
6498.0	E10	PCD USB 03/10/1999 Sun 0034 (GG)
6498.0	E10	PCD2 USB 05/10/1999 Tue 0030 (JM4)
6498.0	E10	PCD (13)SVD_0 USB 09/10/1999 Sat 0030 (JM4)
6498.0	E10	PCD weak USB 23/10/1999 Sat 0030 (JM4)
6507.0	E23	00087 79764 20954 USB 04/10/1999 Mon 0957 (ANUK)
6508.0	M01	463 315 315 44 44 = = L 03043 CW 03/10/1999 Sun 0700 (ANUK)
6508.0	M01	463 473 473 46 46 = = CW 10/10/1999 Sun 0700 (ANUK)
6645.0	V08	peaking S9+50. AM 25/10/1999 Mon 1900 (M)
6658.0	E10	//5170 KPA2 USB 01/10/1999 Fri 0115 (JM4)
6658.0	E10	KPA2 USB 01/10/1999 Fri 0215 (JM4)
6658.0	E10	//5170 KPA2 USB 01/10/1999 Fri 0315 (JM4)
6658.0	E10	//5170 KPA2 USB 02/10/1999 Sat 0115 (JM4)
6658.0	E10	//5170 KPA2 USB 03/10/1999 Sun 0115 (JM4)
6658.0	E10	//5170 KPA2. USB 03/10/1999 Sun 0115 (JM4)
6658.0	E10	USB 03/10/1999 Sun 0315 (JM4)
6658.0	E10	//5170 KPA2 USB 03/10/1999 Sun 0315 (JM4)
6658.0	E10	//5170 KPA2 USB 04/10/1999 Mon 0115 (JM4)
6658.0	E10	//5170 KPA2 USB 04/10/1999 Mon 0215 (JM4)

6658.0 E10 //5170 KPA2 USB 04/10/1999 Mon 0315 (JM4)  
6658.0 E10 //5170 KPA2 USB 05/10/1999 Tue 0015 (JM4)  
6658.0 E10 KPA2 USB 05/10/1999 Tue 0115 (JM4)  
6658.0 E10 //5170 KPA2 USB 06/10/1999 Wed 0115 (JM4)  
6658.0 E10 //5170 KPA2 USB 08/10/1999 Fri 0115 (JM4)  
6658.0 E10 //5170 KPA2 USB 09/10/1999 Sat 0015 (JM4)  
6658.0 E10 //5170 KPA2 USB 09/10/1999 Sat 0115 (JM4)  
6658.0 E10 KPA2 USB 09/10/1999 Sat 0215 (JM4)  
6658.0 E10 //5170 KPA2 USB 09/10/1999 Sat 0315 (JM4)  
6658.0 E10a CI02 USB 14/10/1999 Thu 2245 (GG)  
6660.0 E10 //4780 CI02 USB 23/10/1999 Sat 0345 (JM4)  
6660.0 E10 Israeli intel, CI02. AM 29/10/1999 Fri 2350 (AB)  
6715 E15 m NSA QRU 29/10/1999 Fri 1630 (HFD)  
6722.0 Ends with 000, (long dashes). CW 15/10/1999 Fri 2000  
6724.0 M13 284 = 181 21 = CW 02/10/1999 Sat 2000 (ANUK)  
6724.0 M13 284 = 181 21 = CW 15/10/1999 Fri 2000 (ANUK)  
6745 E10 SYN2, //8465 09/10/1999 Sat 1945 (HFD)  
6745 E10 SYN2, //5530, 4780 12/10/1999 Tue 1945 (HFD)  
6745.0 E10 //5530 SYN2 USB 01/10/1999 Fri 0345 (JM4)  
6745.0 E10 //5629 SYN2 USB 03/10/1999 Sun 0345 (JM4)  
6745.0 E10 //5629 SYN2. USB 03/10/1999 Sun 0345 (JM4)  
6745.0 E10 //5530 SYN2 USB 04/10/1999 Mon 0345 (JM4)  
6745.0 E10 //5530 SYN2 USB 09/10/1999 Sat 0345 (JM4)  
6745.0 E10a SYN2 USB 08/10/1999 Fri 1545 (GG)  
6745.0 E10a SYN2 USB 14/10/1999 Thu 2245 (GG)  
6767.0 M08 CW 10/10/1999 Sun 1200 (BUNKY)  
6768.0 V02 VY WEAK AM 16/10/1999 Sat 0100 (BUNKY)  
6768.0 V02 AM 30/10/1999 Sat 0100 (BUNKY)  
6768.0 V02a A 46931 55651 19383 AM 09/10/1999 Sat 0100 (JM4)  
6768.0 V02a in progress AM 23/10/1999 Sat 0100 (JM4)  
6782.0 M12 135x3 1 8036 142 CW 06/10/1999 Wed 1800 (ANUK)  
6782.0 M12 135x3 1 4761 132 CW 11/10/1999 Mon 1700 (ANUK)  
6782.0 M12 135x3 1 3125 143 CW 13/10/1999 Wed 1800 (ANUK)  
6782.0 M12 135x3 1 9372 146 CW 18/10/1999 Mon 1700 (ANUK)  
6782.0 M12 135x3 1 2447 135 CW 20/10/1999 Wed 1800 (ANUK)  
6786.0 M08 CW 10/10/1999 Sun 1300 (BUNKY)  
6790.0 E06 in progress ...851/79 AM 09/10/1999 Sat 2206 (JE)  
6790.0 E07 English Man, 915 00000. AM 28/10/1999 Thu 2200 (AB)  
6810.0 M03 976/00 CW 14/10/1999 Thu 1000 (ANUK)  
6823.0 M01B 168? 787 787 40 40 = = L 28039 CW 07/10/1999 Thu 1503  
(ANUK)  
6823.0 M01B 168 897 897 45 45 = = CW 21/10/1999 Thu 1503 (ANUK)  
6840.0 E10 //9130 EZI USB 01/10/1999 Fri 0100 (JM4)  
6840.0 E10 //9130 EZI (16)ESNJY USB 02/10/1999 Sat 0100 (JM4)  
6840.0 E10 //9130 EZI (16)ESNJY USB 03/10/1999 Sun 0100 (JM4)  
6840.0 E10 //9130 EZI (16)ESNJY. USB 03/10/1999 Sun 0100 (JM4)  
6840.0 E10 EZI USB 04/10/1999 Mon 0100 (JM4)  
6840.0 E10 //9130 EZI USB 05/10/1999 Tue 0100 (JM4)

6840.0 E10 //9130 EZI 9130 jammed  
6840 E10 EZI 9130 jammed USB 06/10/1999 Wed 0100 (JM4)  
6840.0 E10 EZI 50 NOCOS USB 06/10/1999 Wed 0100 (GG)  
6840.0 E10 //9130 EZI (50)NOCOS USB 08/10/1999 Fri 0100 (JM4)  
6840.0 E10 //9130 EZI (50)NOCOS USB 09/10/1999 Sat 0100 (JM4)  
6840.0 E10 EZI 94 VSVyV USB 11/10/1999 Mon 1900 (GG)  
6840.0 E10 EZI 2 msgs: 7 WSATT/40 VMMTF USB 12/10/1999 Tue 0100 (GG)  
6840.0 E10 //9130 (42)VMMTF USB 13/10/1999 Wed 0100 (JM4)  
6840.0 E10 //9130 EZI (54)MDWHH USB 15/10/1999 Fri 0100 (JM4)  
6840.0 E10 //9130 EZI (40)HBFWI USB 20/10/1999 Wed 0100 (JM4)  
6840.0 E10 //9130 EZI (40)HBFVI USB 22/10/1999 Fri 0100 (JM4)  
6840.0 E10 //9130 EZI USB 23/10/1999 Sat 0100 (JM4)  
6840.0 E10 //9130 EZI (18)EWVSI USB 28/10/1999 Thu 0100 (JM4)  
6840.0 M03 216/00 CW 14/10/1999 Thu 1030 (ANUK)  
6845.0 E07 000 ending, fairly long message. AM 04/10/1999 Mon 2110  
6849 E07 ip 18/10/1999 Mon 2110 (HFD)  
6849 E07 886 886 886 000 25/10/1999 Mon 2100 (HFD)  
6849.0 E07 886x3 1/616 88 AM 04/10/1999 Mon 2100 (JE)  
6849.0 E07 886x3 1/616 88 AM 06/10/1999 Wed 2100 (JE)  
6849.0 E07 886x3 000 AM 13/10/1999 Wed 2100 (JE)  
6849.0 E07 886x3 000 AM 25/10/1999 Mon 2100 (JE)  
6851.0 X06 no message AM 01/10/1999 Fri 2230 (JE)  
6854.5 M08a in progress CW 14/10/1999 Thu 1300 (JM4)  
6855.0 M08a CW 06/10/1999 Wed 1205 (GW)  
6855.0 V02a in progress AM 04/10/1999 Mon 0300 (JM4)  
6866.0 M08 CW 08/10/1999 Fri 1200 (BUNKY)  
6866.0 M08 CW 30/10/1999 Sat 1300 (BUNKY)  
6867.0 M08 CW 16/10/1999 Sat 1300 (BUNKY)  
6887.0 M13A 387x3 000 = 188 18 = CW 12/10/1999 Tue 2000 (ANUK)  
6895.0 Unid. Station possably being jammed.. Constant at S8-S9. USB 28/10/1999 Thu 2257 (JM4)  
6895.0 Unid station. Warbler? USB 30/10/1999 Sat 0136 (GO)  
6895.0 Sounds like a jammer. More than 45 hours on the air now. AM 30/10/1999 Sat 1014 (AB)  
6895.0 Warbling signal, similar to warbling jammer. USB 31/10/1999 Sun 0533 (SM)  
6900.0 E03 USB 21/10/1999 Thu 2105 (MH)  
6903.0 Endless Cryillic characters, no space. CW 25/10/1999 Mon 2100 (AB)  
6910.0 E06 623-915/48 AM 03/10/1999 Sun 2015 (JE)  
6920.0 M13 254 = 191 22 = CW 06/10/1999 Wed 2100 (ANUK)  
6920.0 S06 in progress 971(?) -543/60 breaks/repetitions/971 for 1-2min (at least 3x) AM 23/10/1999 Sat 1958 (JE)  
6920.0 S06 Strange transmission of S6. AM 23/10/1999 Sat 1958 (JE)  
6925.0 M51 French intel/mil, 5lg msgs. CW 27/10/1999 Wed 1312 (AB)  
6925.0 M51 French intel/mil,msg nr 8. CW 28/10/1999 Thu 0800 (AB)  
6926.0 S06 502x3 00000 AM 20/10/1999 Wed 2000 (ANUK)

6932.0 M08 CW 16/10/1999 Sat 1300 (BUNKY)  
6934.0 M12 658x3 1 4316 138 CW 02/10/1999 Sat 2000 (ANUK)  
6934.0 M12 658x3 1 8036 142 CW 06/10/1999 Wed 2000 (ANUK)  
6934.0 M12 658x3 1 8231 141 CW 09/10/1999 Sat 2000 (ANUK)  
6934.0 M12 658x3 1 3125 143 CW 13/10/1999 Wed 2000 (ANUK)  
6934.0 M12 658x3 1 3465 140 CW 16/10/1999 Sat 2000 (ANUK)  
6934.0 M12 658x3 1 2447 135 CW 20/10/1999 Wed 2000 (ANUK)  
6945 S17C 82050 break on 6945 at 1255, //8190 02/10/1999 Sat  
1250 (HFD)  
6945.0 S17C 89043 AM 05/10/1999 Tue 1245 (ANUK)  
6945.0 S17C 91043 AM 08/10/1999 Fri 1250 (ANUK)  
6945.0 S17C 68033 AM 16/10/1999 Sat 1200 (ANUK)  
6945.0 S17C 75064 AM 17/10/1999 Sun 1250 (ANUK)  
6945.0 S17C 92051 AM 20/10/1999 Wed 1250 (ANUK)  
6945.0 S17C 43032 AM 22/10/1999 Fri 1250 (ANUK)  
6947.0 M56 13 : 677415x3 : 99 AR CW 02/10/1999 Sat 1930 (ANUK)  
6948.0 M52 Various Messages CW 04/10/1999 Mon 1353 (ANUK)  
6948.0 M52 Various Messages CW 05/10/1999 Tue 1248 (ANUK)  
6949.0 M52 13:634015x3 :99 AR CW 02/10/1999 Sat 1833 (JE)  
6949.0 M52 13:6340115X3 :99 AR 13:678535X3 :99 AR. CW 02/10/1999  
Sat 1833 (JE)  
6949.0 M52 13:678535x3 :99 AR CW 02/10/1999 Sat 1845 (JE)  
6955.0 Strange data signal, sonar ping echo?, then a raspy  
telemetry sound. 29/10/1999 Fri 0244 (KC)  
6959.0 E03 id 70125 USB 08/10/1999 Fri 2200 (GG)  
6959.0 E03 Linc Pcher id 77604. USB 15/10/1999 Fri 2000 (AB)  
6963.0 M51 French intel/mil, msg nr 9. CW 28/10/1999 Thu 0805 (AB)  
6974.0 M13 417 = 181 23 = CW 10/10/1999 Sun 1900 (ANUK)  
6974.0 M13 417 = 181 23 = CW 11/10/1999 Mon 1900 (ANUK)  
6982.0 M08 CW 10/10/1999 Sun 1300 (BUNKY)  
6982.0 M08 CW 11/10/1999 Mon 1200 (BUNKY)  
6982.0 M08 CW 18/10/1999 Mon 1200 (BUNKY)  
6982.0 M08 CW 24/10/1999 Sun 1300 (BUNKY)  
6982.5 M08a in progress CW 25/10/1999 Mon 1200 (JM4)  
6982.5 M08a in progress CW 25/10/1999 Mon 1300 (JM4)  
6983.0 M51 CW 06/10/1999 Wed 1110 (GW)  
7250.0 M04 U R3 L0 L0x3/59656 Week 2 E23 sked CW 11/10/1999 Mon  
0957 (ANUK)  
7330.0 M51 NR 46 to NR // 7374 CW 04/10/1999 Mon 0700 (ANUK)  
7337.0 E03 Linc Pcher, id 51327. USB 27/10/1999 Wed 2100 (AB)  
7420.0 M51 NR 48 CW 01/10/1999 Fri 0630 (VM)  
7445 E10 VLB2, //9270 09/10/1999 Sat 1945 (HFD)  
7445.0 E10a VLB2 USB 08/10/1999 Fri 1545 (GG)  
7555.0 V02a 51998 85443 5053, (4 digit). AM 03/10/1999 Sun 0300  
7555.0 V02a A 51998 85443 5053 (four digit) AM 03/10/1999 Sun 0300  
7657.0 M12 749x3 1 7548 143 CW 05/10/1999 Tue 1620 (ANUK)  
7657.0 M12 749x3 1 8036 142 CW 06/10/1999 Wed 1620 (ANUK)  
7657.0 M12 749x3 000 CW 10/10/1999 Sun 1610 (ANUK)

7657.0 M12 749x3 1 4761 132 CW 11/10/1999 Mon 1620 (ANUK)  
7657.0 M12 749x3 1 1254 140 CW 12/10/1999 Tue 1620 (ANUK)  
7657.0 M12 749x3 1 3125 143 CW 13/10/1999 Wed 1620 (ANUK)  
7657.0 M12 749x3 000 CW 14/10/1999 Thu 1610 (ANUK)  
7657.0 M12 749x3 000 CW 15/10/1999 Fri 1610 (ANUK)  
7657.0 M12 749x3 000 CW 16/10/1999 Sat 1610 (ANUK)  
7657.0 M12 749x3 000 CW 17/10/1999 Sun 1610 (ANUK)  
7657.0 M12 749x3 1 9372 146 CW 18/10/1999 Mon 1620 (ANUK)  
7657.0 M12 749x3 1 4307 147 CW 19/10/1999 Tue 1620 (ANUK)  
7657.0 M12 749x3 1 2447 135 CW 20/10/1999 Wed 1620 (ANUK)  
7657.0 M12 749x3 000 CW 22/10/1999 Fri 1610 (ANUK)  
7735.0 M13 365 = 181 20 = CW 14/10/1999 Thu 1700 (ANUK)  
7739.0 M13 365 = 181 20 = CW 15/10/1999 Fri 1700 (ANUK)  
7760.0 E10 //6270 ULX (34)HIHKZ USB 01/10/1999 Fri 0100 (JM4)  
7760.0 E10 //6270 ULX USB 02/10/1999 Sat 0100 (JM4)  
7760.0 E10 //6270 ULX USB 03/10/1999 Sun 0100 (JM4)  
7760.0 E10 //6270 ULX. USB 03/10/1999 Sun 0100 (JM4)  
7760.0 E10 //6270 ULX (34)HIHKZ USB 04/10/1999 Mon 0100 (JM4)  
7760.0 E10 //6270 ULX USB 05/10/1999 Tue 0100 (JM4)  
7760.0 E10 //6270 ULX (?8)\_IHK0 USB 06/10/1999 Wed 0100 (JM4)  
7760.0 E10 //6270 ULX USB 08/10/1999 Fri 0100 (JM4)  
7760.0 E10 //6270 ULX USB 09/10/1999 Sat 0100 (JM4)  
7760.0 E10 //6270 weak USB 13/10/1999 Wed 0100 (JM4)  
7760.0 E10 //6270 ULX USB 15/10/1999 Fri 0100 (JM4)  
7760.0 E10 ULX USB 19/10/1999 Tue 0100 (JM4)  
7760.0 E10 //6270 ULX USB 20/10/1999 Wed 0100 (JM4)  
7760.0 E10 ULX USB 22/10/1999 Fri 0100 (JM4)  
7760.0 E10 //6270 ULX (69)AABOP USB 23/10/1999 Sat 0100 (JM4)  
7760.0 E10 ULX USB 28/10/1999 Thu 0100 (JM4)  
7796.0 M23 828 = 45 45 = 06318 65026 / 79600 06318 CW 04/10/1999  
Mon 1500 (ANUK)  
7796.0 M23 482 = 47 47 = RR 2 from 1999-09-29 CW 05/10/1999 Tue  
0930 (ANUK)  
7796.0 M23 666 = 57 57 = RR 28 from 1999-01-15 CW 05/10/1999 Tue  
1500 (ANUK)  
7796.0 M23 062 = 70 70 = 09114 05620 / 70000 09114  
7796.0 M23 482 = 47 47 = RR 2 from 1999-09-29 CW 06/10/1999 Wed  
1458 (ANUK)  
7796.0 M23 224 = ?? ?? = CW 07/10/1999 Thu 0928 (ANUK)  
7796.0 M23 624 = 42 42 = 23109 09691 / 30000 23109 CW 07/10/1999  
Thu 1458 (ANUK)  
7796.0 M23 002 = 50 50 = 10905 95681 / 02900 10915 CW 08/10/1999  
Fri 0920 (ANUK)  
7796.0 M23 406 = 43 43 = RR 22 from 1999-01-06 CW 08/10/1999 Fri  
1500 (ANUK)  
7796.0 M23 002 = 50 50 = RR 2 from 1999-10-08 CW 11/10/1999 Mon  
1458 (ANUK)  
7796.0 M23 882 = 23 23 = RR 2 from 1999-09-27 CW 12/10/1999 Tue

0929 (ANUK)  
 7796.0 M23 624 = 42 42 = RR 2 from 1999-10-07 CW 12/10/1999 Tue  
 1500 (ANUK)  
 7796.0 M23 024 = 39 39 = 04202 18578 / 87520 04202 CW 13/10/1999  
 Wed 0930 (ANUK)  
 7796.0 M23 080= 32 32 = RR 25 from 1999-01-12 CW 13/10/1999 Wed  
 1458 (ANUK)  
 7796.0 M23 666 = 95 95 = 17917 65041 / CW 14/10/1999 Thu 1458  
 7796.0 M23 062 = 70 70 = RR 2 from 1999-10-06 CW 15/10/1999 Fri  
 0922 (ANUK)  
 7796.0 M23 482 = 47 47 = RR 3 from 1999-09-29 CW 15/10/1999 Fri  
 1455 (ANUK)  
 7796.0 M23 606 = 66 66 = 10823 05559 / 74000 17917 CW 18/10/1999  
 Mon 0928 (ANUK)  
 7796.0 M23 002 = 50 50 = RR 3 from 1999-10-08 CW 18/10/1999 Mon  
 1500 (ANUK)  
 7796.0 M23 882 = 23 23 = RR 2 from 1999-10-12 CW 19/10/1999 Tue  
 0930 (ANUK)  
 7796.0 M23 024 = 36 36 = RR 2 from 1999-10-13 CW 20/10/1999 Wed  
 0930 (ANUK)  
 7796.0 M23 080= 31 31 = 15916 51419 / 68000 15916 CW 20/10/1999  
 Wed 1459 (ANUK)  
 7796.0 M23 448 = 42 42 = 16106 09654 / ?????? ?????? CW 21/10/1999  
 Thu 0925 (ANUK)  
 7796.0 M23 666 = 95 95 = RR 2 from 1999-10-16 CW 21/10/1999 Thu  
 1500 (ANUK)  
 7796.0 M23 062 = 70 70 = RR 3 from 1999-10-07 CW 22/10/1999 Fri  
 0925 (ANUK)  
 7796.0 M23 482 = 47 47 = RR 4 from 1999-09-29 CW 22/10/1999 Fri  
 1500 (ANUK)  
 7887.0 V02 AM 10/10/1999 Sun 0200 (BUNKY)  
 7887.0 V02 Spanish Lady YL/SS - in progress, weak signal AM  
 17/10/1999 Sun 0200 (LA)  
 7887.0 V02 Spanish Lady YL/SS - in progress AM 24/10/1999 Sun 0200  
 (LA)  
 7887.0 V02a A 51998 85443 5053 (four digit)  
 7887.0 V02a 51998 85443 5053 (4 digit). AM 03/10/1999 Sun 0200  
 7890.0 M08 CW 10/10/1999 Sun 1400 (BUNKY)  
 7890.0 M08 CW 12/10/1999 Tue 1200 (BUNKY)  
 7890.0 M08 CW 16/10/1999 Sat 1400 (BUNKY)  
 7890.0 M08 CW 31/10/1999 Sun 1400 (BUNKY)  
 7895.0 S07 000 ending, null message. AM 04/10/1999 Mon 2040 (JJ)  
 7910.0 X06 In progress. AM 04/10/1999 Mon 2035 (JJ)  
 7918.0 E10 YHF (19)FWAMU USB 01/10/1999 Fri 0200 (JM4)  
 7918.0 E10 YHF (84)HBNFM USB 01/10/1999 Fri 0230 (JM4)  
 7918.0 E10 YHF 19 FWAMU USB 03/10/1999 Sun 0200 (GG)  
 7918.0 E10 YHF (19) FWAMU. USB 03/10/1999 Sun 0200 (JM4)  
 7918.0 E10 YHF (84)HBNFM. USB 03/10/1999 Sun 0230 (JM4)



7918.0 E10 YHF (84)HBNFM USB 03/10/1999 Sun 0230 (JM4)  
7918.0 E10 YHF (76)FZZMY  
7918.0 E10 YHF 2 msgs 84 HBNFM/16 HDYNU USB 04/10/1999 Mon 0230 (GG)  
7918.0 E10 YHF #1(84)HBNFM went abruptly off air USB 04/10/1999 Mon 0230 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 05/10/1999 Tue 0200 (JM4)  
7918.0 E10 YHF 76 FZZMY USB 05/10/1999 Tue 0200 (GG)  
7918.0 E10 YHF 2 msgs: 87 RT0jH/?? ?????? USB 05/10/1999 Tue 1800 (GG)  
7918.0 E10 YHF 2 msgs: 84 HBNFM/16 HDYNU USB 06/10/1999 Wed 0230 (GG)  
7918.0 E10 YHF 76 FZZMY USB 07/10/1999 Thu 0200 (GG)  
7918.0 E10 YHF 5 TYLCD USB 07/10/1999 Thu 0430 (GG)  
7918.0 E10 YHF (76)FZZMY USB 08/10/1999 Fri 0200 (JM4)  
7918.0 E10 YHF 2 msgs: 87 RTDZH/53 CYDGN USB 08/10/1999 Fri 1800 (GG)  
7918.0 E10 YHF (76) FZZMY USB 09/10/1999 Sat 0200 (JM4)  
7918.0 E10 YHF (83) YKCSB USB 09/10/1999 Sat 0230 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 13/10/1999 Wed 0200 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 15/10/1999 Fri 0200 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 19/10/1999 Tue 0200 (JM4)  
7918.0 E10 YHF (84)Y0TXH USB 19/10/1999 Tue 0230 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 22/10/1999 Fri 0200 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 23/10/1999 Sat 0230 (JM4)  
7918.0 E10 YHF (76)FZZMY USB 28/10/1999 Thu 0200 (JM4)  
7918.0 E10 YHF (84)YQTVH USB 28/10/1999 Thu 0230 (JM4)  
7918.0 E10 YHF 20 OFLXH USB 28/10/1999 Thu 0430 (GG)  
7918.0 E10 YHF USB 29/10/1999 Fri 1600 (GG)  
7944.0 M42 FAPSI to U1K CW 06/10/1999 Wed 0030 (RK)  
8014.0 M10E 111x3 95533x3 20x3 CW 05/10/1999 Tue 2100 (ANUK)  
8014.0 M10E 111x3 63573x3 20x3 CW 07/10/1999 Thu 2100 (ANUK)  
8033.0 M03 508/00 CW 06/10/1999 Wed 0730 (ANUK)  
8033.0 M03 508/00 CW 20/10/1999 Wed 0730 (ANUK)  
8041.0 M10E 111x3 22033x3 20x3 New Sked CW 06/10/1999 Wed 0700 (ANUK)  
8042.0 M10? Call missed. Ended 68 68 20 20 000 CW 04/10/1999 Mon 0700 (ANUK)  
8042.0 M10E 111x3 51195x3 20x3 CW 08/10/1999 Fri 0700 (ANUK)  
8042.0 M10E 111x3 71177x3 20x3 CW 11/10/1999 Mon 0700 (ANUK)  
8042.0 M10E 111x3 02091x3 20x3 CW 18/10/1999 Mon 0700 (ANUK)  
8067.0 M12 840x3 1 411 187 Note freq. Qrm on 8087 CW 15/10/1999 Fri 1740 (ANUK)  
8082.0 V07 AM 08/10/1999 Fri 2010 (MH)  
8083 V07 103 103 103 000 08/10/1999 Fri 2010 (HFD)  
8083.0 V07 130x3 000 AM 01/10/1999 Fri 2010 (ANUK)  
8085.0 E05 833 Count 61 very strong signal in the uk AM 25/10/1999 Mon 0017 (SG)

8095.0 V02 5 fgr groups. AM 14/10/1999 Thu 0538 (NG)  
8097.0 M08 13122 75312 20053 CW 04/10/1999 Mon 0800 (ANUK)  
8097.0 M08 40771 15601 38592 CW 06/10/1999 Wed 0800 (ANUK)  
8097.0 M08 10073 15603 80621 CW 08/10/1999 Fri 0800 (ANUK)  
8097.0 M08 03241 85921 16002 CW 15/10/1999 Fri 0800 (ANUK)  
8097.0 M08 60654 17683 97631 CW 20/10/1999 Wed 0800 (ANUK)  
8097.0 V02 Spanish Lady YL/SS in progress - signal much stronger  
than normal AM 13/10/1999 Wed 0600 (LA)  
8097.0 V02 ENDED WITH FINAL X 3 3 MESSAGES IN THERE I THINK AM  
20/10/1999 Wed 0006 (SG)  
8099.0 M24 239 747 747 151 151 = = 40 WPM CW 20/10/1999 Wed 2010  
(ANUK)  
8127.0 E10 KPA2 USB 17/10/1999 Sun 1518 (MH)  
8127.0 E10 KPA ZMN THE Z SOUNDED LIKE ZERO AM 22/10/1999 Fri 0016  
(SG)  
8127.0 E10a CI02 USB 04/10/1999 Mon 2345 (GG)  
8127.0 E10a CI02 USB 08/10/1999 Fri 1545 (GG)  
8130.0 E06 AM 21/10/1999 Thu 2020 (MH)  
8130.0 E06 AM 23/10/1999 Sat 2020 (MH)  
8130.0 XPH 511x3 1 89 Groups AM 01/10/1999 Fri 2040 (ANUK)  
8130.0 XPH AM 08/10/1999 Fri 2040 (MH)  
8130.0 XPH Polytone stn msg. AM 22/10/1999 Fri 2040 (AB)  
8136.0 M08 13123 75313 38951 CW 05/10/1999 Tue 0800 (ANUK)  
8136.0 M08 40772 15602 38593 CW 07/10/1999 Thu 0800 (ANUK)  
8136.0 M08 35431 17902 92481 CW 12/10/1999 Tue 0800 (ANUK)  
8136.0 M08 03242 85922 16003 CW 16/10/1999 Sat 0800 (ANUK)  
8136.0 M08 In progress CW 17/10/1999 Sun 1100 (LA)  
8160.0 V06 591X3 00000. USB 01/10/1999 Fri 2200 (JE)  
8160.0 V06 591x3 00000 AM 01/10/1999 Fri 2200 (JE)  
8170.0 X06 In progress. AM 04/10/1999 Mon 2015 (JJ)  
8173.0 M12 749x3 1 1446 135 CW 04/10/1999 Mon 1640 (ANUK)  
8173.0 M12 135x3 1 1446 135 CW 04/10/1999 Mon 1740 (ANUK)  
8180.0 M42 FAPSI 500/75 link mr 40078 after 6-tone calling-up  
signal. RTTY 27/10/1999 Wed 1800 (JD)  
8187.0 M03 624/00 CW 02/10/1999 Sat 0800 (ANUK)  
8187.0 M03 624/00 CW 09/10/1999 Sat 0800 (ANUK)  
8187.0 M03 624/00 CW 16/10/1999 Sat 0800 (ANUK)  
8190 M10 555 127 39 801 35 28/10/1999 Thu 1800 (HFD)  
8190 S17C 82050 break on 6945 at 1255, //6945 02/10/1999 Sat  
1250 (HFD)  
8190.0 M10 555x3 127 16 801 26 CW 03/10/1999 Sun 1800 (ANUK)  
8190.0 M10 555x3 127 31 801 38 CW 10/10/1999 Sun 1800 (ANUK)  
8190.0 M10 555x3 434 29 CW 11/10/1999 Mon 1500 (ANUK)  
8300.0 V13 AM 06/10/1999 Wed 1230 (JM4)  
8300.0 V13 AM 06/10/1999 Wed 1300 (JM4)  
8300.0 V13 AM 06/10/1999 Wed 1330 (JM4)  
8300.0 V13 AM 08/10/1999 Fri 1400 (JM4)  
8300.0 V13 AM 13/10/1999 Wed 1400 (JM4)

8300.0 V13 AM 14/10/1999 Thu 1300 (JM4)  
8300.0 V13 AM 14/10/1999 Thu 1330 (JM4)  
8300.0 V13 AM 15/10/1999 Fri 1200 (JM4)  
8300.0 V13 AM 15/10/1999 Fri 1300 (JM4)  
8300.0 V13 AM 18/10/1999 Mon 1400 (JM4)  
8300.0 V13 AM 25/10/1999 Mon 1200 (JM4)  
8300.0 V13 AM 27/10/1999 Wed 1300 (JM4)  
8300.0 V13 New Star Broadcasting, music + numbers. USB 28/10/1999  
Thu 1505 (AB)  
8300.0 V13 AM 29/10/1999 Fri 1300 (JM4)  
8300.0 V13 AM 31/10/1999 Sun 1400 (JM4)  
8307.0 M23 579 // 9285 Repeat Daily CW 04/10/1999 Mon 0800  
8307.0 M23 579 // 9285 Repeat Daily CW 04/10/1999 Mon 1400 (ANUK)  
8307.0 M23 579 // 9285 Repeat Daily CW 10/10/1999 Sun 0800 (ANUK)  
8307.0 M23 579 // 9285 Repeat daily CW 10/10/1999 Sun 1400 (ANUK)  
8307.0 M23 579 // 9285 Repeat Daily CW 17/10/1999 Sun 0800 (ANUK)  
8375.0 V22 extremely weak AM 06/10/1999 Wed 1300 (JM4)  
8437.0 M22 //10046//17050 4XZ marker CW 27/10/1999 Wed 2300 (JM4)  
8437.0 M22 //10046//17050 4XZ in tfc CW 31/10/1999 Sun 1400 (JM4)  
8464 E03 70125, //6485, 5746 06/10/1999 Wed 1900 (HFD)  
8464.0 E03 USB 03/10/1999 Sun 1610 (MH)  
8464.0 E03 USB 13/10/1999 Wed 1929 (MH)  
8464.0 E03 USB 17/10/1999 Sun 1645 (MH)  
8465 E10 CI02, //10352 09/10/1999 Sat 1945 (HFD)  
8465 E10 SYN2, //6745 09/10/1999 Sat 1945 (HFD)  
8513.0 M10E 111x3 80834x3 20x3 CW 06/10/1999 Wed 2100 (ANUK)  
8514.0 M10E 111x3 28950x3 20x3 New frequency CW 04/10/1999 Mon 2100  
(ANUK)  
8514.0 M10E 111x3 63581x3 20x3  
8514.0 M10E 111x3 79428x3 20x3 CW 16/10/1999 Sat 2100 (ANUK)  
8514.0 M10E 111x3 29881x3 20x3 CW 18/10/1999 Mon 2100 (ANUK)  
8514.0 M10E 111x3 94249x3 20x3 CW 20/10/1999 Wed 2100 (ANUK)  
8514.0 M10E 111x3 61504x3 20x3 CW 21/10/1999 Thu 2100 (ANUK)  
8676.0 V02 A 616/06 06/49 AM 13/10/1999 Wed 0200 (JM4)  
8749.0 V02 Spanish Lady YL/SS - "Atencion 959 01..." AM 17/10/1999  
Sun 0400 (LA)  
8749.0 V02 Spanish Lady YL/SS - rptg. 959/01 51/01 AM 24/10/1999  
Sun 0400 (LA)  
8749.0 V02 Spanish Lady YL/SS - rptg. 979/01 51/01 AM 31/10/1999  
Sun 0400 (LA)  
8800.0 Seoul radio. LSB 07/10/1999 Thu 0735 (KK)  
8814.0 M10E 111x3 39868x3 20x3 CW 08/10/1999 Fri 2100 (ANUK)  
8814.0 M10E 111x3 38873x3 20x3 CW 10/10/1999 Sun 2100 (ANUK)  
8814.0 M10E 111x3 65519x3 20x3 CW 11/10/1999 Mon 2100 (ANUK)  
8835.0 M10E 111x3 94249x3 20x3 CW 09/10/1999 Sat 2100 (ANUK)  
9040.0 M12 257x3 1 1446 135 CW 04/10/1999 Mon 1900 (ANUK)  
9040.0 M12 257x3 1 8036 142 CW 06/10/1999 Wed 1900 (ANUK)  
9040.0 M12 257x3 1 4761 132 CW 11/10/1999 Mon 1900 (ANUK)

9040.0 M12 257x3 1 3125 143 CW 13/10/1999 Wed 1900 (ANUK)  
 9040.0 M12 257x3 1 9372 146 CW 18/10/1999 Mon 1900 (ANUK)  
 9040.0 M12 257x3 1 2447 135 CW 20/10/1999 Wed 1900 (ANUK)  
 9062.0 M08 In progress CW 17/10/1999 Sun 0500 (LA)  
 9063.0 M08 77622 12152 80693 CW 10/10/1999 Sun 0700 (ANUK)  
 9063.0 V02 Changes made. Was 12135 AM 28/10/1999 Thu 0200 (JM4)  
 9063.0 V02 Spanish Lady YL/SS - in progress AM 28/10/1999 Thu 0200 (LA)  
 9063.0 V02a in progress - note changed frequency AM 28/10/1999 Thu 0200 (JM4)  
 9081 V07 148 148 148 000 04/10/1999 Mon 2010 (HFD)  
 9084.0 V07 148x3 000 AM 04/10/1999 Mon 2010 (ANUK)  
 9130 E11 187/00 29/10/1999 Fri 1200 (HFD)  
 9130.0 E10 //6840 EZI USB 01/10/1999 Fri 0100 (JM4)  
 9130.0 E10 //6840 EZI (16)ESNJY USB 02/10/1999 Sat 0100 (JM4)  
 9130.0 E10 //6840 EZI (16) ESNJY. USB 03/10/1999 Sun 0100 (JM4)  
 9130.0 E10 //6840 EZI (16)ESNJY USB 03/10/1999 Sun 0100 (JM4)  
 9130.0 E10 //6840 EZI USB 05/10/1999 Tue 0100 (JM4)  
 9130.0 E10 USB 05/10/1999 Tue 2215 (MH)  
 9130.0 E10 //6840 EZI (50)NOCOS USB 08/10/1999 Fri 0100 (JM4)  
 9130.0 E10 EZI 47 SRGHY USB 08/10/1999 Fri 1730 (GG)  
 9130.0 E10 //6840 EZI (50)NOCOS USB 09/10/1999 Sat 0100 (JM4)  
 9130.0 E10 EZI 50 NOCOS USB 09/10/1999 Sat 0100 (GG)  
 9130.0 E10 EZI 47 SRGHY USB 11/10/1999 Mon 1730 (GG)  
 9130.0 E10 //6840 (42)VMMTF USB 13/10/1999 Wed 0100 (JM4)  
 9130.0 E10 //6840 EZI (54)MDWHH USB 15/10/1999 Fri 0100 (JM4)  
 9130.0 E10 //6840 EZI2 - 9130 jammed USB 19/10/1999 Tue 0100 (JM4)  
 9130.0 E10 //6840 EZI (40)HBFWI USB 20/10/1999 Wed 0100 (JM4)  
 9130.0 E10 //6840 EZI (40)HBFVI USB 22/10/1999 Fri 0100 (JM4)  
 9130.0 E10 //6840 EZI USB 23/10/1999 Sat 0100 (JM4)  
 9130.0 E10 EZI 18 EWVSL USB 28/10/1999 Thu 0100 (GG)  
 9130.0 E10 //6840 EZI (18)EWVSI USB 28/10/1999 Thu 0100 (JM4)  
 9130.0 E10a EZI2 USB 08/10/1999 Fri 1930 (GG)  
 9153.0 M08 83222 ????? 89063 CW 01/10/1999 Fri 0700 (ANUK)  
 9153.0 M08 07921 09813 80673 CW 04/10/1999 Mon 1000 (ANUK)  
 9153.0 M08 20851 77771 73873 CW 05/10/1999 Tue 0600 (ANUK)  
 9153.0 M08 16641 59043 40841 CW 08/10/1999 Fri 0600 (ANUK)  
 9153.0 M08 10073 15603 80621 CW 08/10/1999 Fri 0700 (ANUK)  
 9153.0 M08 93751 07053 26741 CW 08/10/1999 Fri 0700 (ANUK)  
 9153.0 M08 77623 12153 17901 CW 11/10/1999 Mon 0700 (ANUK)  
 9153.0 M08 03241 85921 16002 CW 15/10/1999 Fri 0700 (ANUK)  
 9153.0 M08 IP Not on at 0700 CW 18/10/1999 Mon 0730 (ANUK)  
 9153.0 M08 In progress CW 19/10/1999 Tue 0600 (LA)  
 9153.0 M08 60654 17683 97361 CW 20/10/1999 Wed 0700 (ANUK)  
 9153.0 M08 In progress CW 29/10/1999 Fri 0700 (LA)  
 9153.0 M08 In progress CW 29/10/1999 Fri 1000 (LA)  
 9168.0 E06 705 235 235 157 157 AM 19/10/1999 Tue 2000 (ANUK)  
 9170 E06 ip, 5f, 239 157 00000 (SN: 705) 18/10/1999 Mon 2010

9174.0 S06 Call missed. Ended 235 235 157 157 00000 AM 18/10/1999  
 Mon 2006 (ANUK)  
 9216.0 M42 GMN QRU RTTY 28/10/1999 Thu 0052 (BUNKY)  
 9219.0 E05 833 very strong signal in the uk AM 25/10/1999 Mon 0017  
 9238.0 M08 62391 40202 59662 CW 04/10/1999 Mon 0900 (ANUK)  
 9238.0 M08 62393 53441 54861 CW 06/10/1999 Wed 0900 (ANUK)  
 9238.0 M08 25961 02882 77772 CW 07/10/1999 Thu 0600 (ANUK)  
 9238.0 M08 40772 15602 38593 CW 07/10/1999 Thu 0700 (ANUK)  
 9238.0 M08 77432 53443 54863 CW 08/10/1999 Fri 0900 (ANUK)  
 9238.0 M08 04683 27123 86823 CW 11/10/1999 Mon 0900 (ANUK)  
 9238.0 M08 35431 17902 92481 CW 12/10/1999 Tue 0700 (ANUK)  
 9238.0 M08 19041 25963 71401 CW 14/10/1999 Thu 0600 (ANUK)  
 9238.0 M08 92483 35431 16001 CW 14/10/1999 Thu 0700 (ANUK)  
 9238.0 M08 86311 92571 03741 CW 15/10/1999 Fri 0900 (ANUK)  
 9238.0 M08 IP CW 16/10/1999 Sat 0700 (ANUK)  
 9238.0 M08 84201 69601 9211 CW 18/10/1999 Mon 0900 (ANUK)  
 9238.0 M08 In progress CW 29/10/1999 Fri 0900 (LA)  
 9238.0 V02 Attencion 441 041 04 50 2 Finals AM 11/10/1999 Mon 0800  
 (ANUK)  
 9250.1 Numbers transmission. USB 19/10/1999 Tue 1931 (TE)  
 9251.0 E03 USB 01/10/1999 Fri 2008 (MH)  
 9251.0 E03 USB 03/10/1999 Sun 2123 (MH)  
 9251.0 E03 id 70125 USB 08/10/1999 Fri 2200 (GG)  
 9270 E10 VLB2, //7445 09/10/1999 Sat 1945 (HFD)  
 9272.0 M03 182/00 CW 08/10/1999 Fri 0730 (ANUK)  
 9285.0 XW whales ?? 05/10/1999 Tue 0025 (JM4)  
 9323.0 M08 In progress CW 17/10/1999 Sun 0900 (LA)  
 9323.0 V02 Spanish Lady YL/SS - in progress w/ very weak signal AM  
 28/10/1999 Thu 0400 (LA)  
 9330.0 M08 In progress CW 30/10/1999 Sat 0500 (LA)  
 9330.0 V02 AM 06/10/1999 Wed 0500 (LA)  
 9330.0 V02 Spanish Lady YL/SS, in progress AM 11/10/1999 Mon 0600  
 9330.5 M08a in progress CW 04/10/1999 Mon 0400 (JM4)  
 9333.0 M08 54753 48853 79031 CW 20/10/1999 Wed 1000 (ANUK)  
 9333.0 V02a On but U/R AM 11/10/1999 Mon 0600 (ANUK)  
 9342.0 M13 517=187 25 = CW 04/10/1999 Mon 2000 (ANUK)  
 9342.0 M13 517 = 187 25 = First 2 517 Hand sent CW 05/10/1999 Tue  
 2000 (ANUK)  
 9342.0 M13 517 = 186 25 = CW 18/10/1999 Mon 1900 (ANUK)  
 9382.0 E10 YHF 2 msgs: 23 MGSZ/6 NXHHE USB 01/10/1999 Fri 0430  
 (GG)  
 9382.0 E10 YHF USB 03/10/1999 Sun 0430 (GG)  
 9382.0 E10 YHF 43 AOWUX USB 04/10/1999 Mon 0430 (GG)  
 9390.0 M08a CW 06/10/1999 Wed 1200 (GW)  
 9487.0 M12 840x3 000 CW 01/10/1999 Fri 1710 (ANUK)  
 9487.0 M12 840x3 1 411 187 CW 15/10/1999 Fri 1720 (ANUK)  
 9725.0 V13 AM 06/10/1999 Wed 1300 (JM4)  
 9725.0 V13 AM 06/10/1999 Wed 1330 (JM4)

9725.0 V13 AM 06/10/1999 Wed 1400 (JM4)  
 9725.0 V13 AM 08/10/1999 Fri 1400 (JM4)  
 9725.0 V13 AM 08/10/1999 Fri 1500 (JM4)  
 9725.0 V13 AM 13/10/1999 Wed 1400 (JM4)  
 9725.0 V13 AM 14/10/1999 Thu 1300 (JM4)  
 9725.0 V13 AM 14/10/1999 Thu 1330 (JM4)  
 9725.0 V13 AM 14/10/1999 Thu 1400 (JM4)  
 9725.0 V13 AM 15/10/1999 Fri 1300 (JM4)  
 9725.0 V13 AM 18/10/1999 Mon 1400 (JM4)  
 9725.0 V13 AM 19/10/1999 Tue 1400 (JM4)  
 9725.0 V13 AM 27/10/1999 Wed 1300 (JM4)  
 9725.0 V13 AM 27/10/1999 Wed 1330 (JM4)  
 9725.0 V13 AM 27/10/1999 Wed 1400 (JM4)  
 9840.0 S06 418x3 00000 AM 12/10/1999 Tue 0808 (ANUK)  
 9840.0 S06 418x3 00000 AM 19/10/1999 Tue 0809 (ANUK)  
 9958.0 M12 289x3 1 9514 279 CW 01/10/1999 Fri 1932 (ANUK)  
 9958.0 M12 289x3 1 1086 331 CW 17/10/1999 Sun 1938 (ANUK)  
 10015.0 M23 320 CW 01/10/1999 Fri 2000 (ANUK)  
 10015.0 M23 320 CW 02/10/1999 Sat 2000 (ANUK)  
 10046.0 M22 4XZ marker CW 01/10/1999 Fri 0150 (JM4)  
 10046.0 M22 //17050 4XZ marker CW 02/10/1999 Sat 0100 (JM4)  
 10046.0 M22 //17050 4XZ in tfc CW 03/10/1999 Sun 0120 (JM4)  
 10046.0 M22 //17050 4XZ in tfc. CW 03/10/1999 Sun 0120 (JM4)  
 10046.0 M22 4XZ marker CW 04/10/1999 Mon 0040 (JM4)  
 10046.0 M22 4XZ marker CW 06/10/1999 Wed 0120 (JM4)  
 10046.0 M22 //17050 4XZ marker CW 08/10/1999 Fri 0120 (JM4)  
 10046.0 M22 //17050 4XZ in tfc CW 09/10/1999 Sat 0020 (JM4)  
 10046.0 M22 //17050 4XZ marker CW 13/10/1999 Wed 0100 (JM4)  
 10046.0 M22 //17050 4XZ marker CW 14/10/1999 Thu 1340 (JM4)  
 10046.0 M22 4XZ marker CW 19/10/1999 Tue 0145 (JM4)  
 10046.0 M22 4XZ in tfc CW 22/10/1999 Fri 0100 (JM4)  
 10046.0 M22 4XZ marker CW 23/10/1999 Sat 0000 (JM4)  
 10046.0 M22 //8437//17050 4XZ marker CW 27/10/1999 Wed 2300 (JM4)  
 10046.0 M22 //8437//17050 4XZ in tfc CW 31/10/1999 Sun 1400 (JM4)  
 10104.0 V07 130x3 000 AM 01/10/1999 Fri 2000 (ANUK)  
 10108.0 V07 130x3 000 AM 15/10/1999 Fri 2000 (ANUK)  
 10125.0 M08 50701 65191 20131 CW 12/10/1999 Tue 0900 (ANUK)  
 10125.0 M08 Ids IADTA GWMTN WNMKN + msgs, CW 28/10/1999 Thu 0900 (AB)  
 10125.0 M10 555x3 186 37 450 39 CW 08/10/1999 Fri 1720 (ANUK)  
 10125.0 M10 555x3 434 29 CW 12/10/1999 Tue 1500 (ANUK)  
 10125.5 M08a in progress CW 23/10/1999 Sat 0400 (JM4)  
 10126.0 V02 AM 28/10/1999 Thu 0100 (BUNKY)  
 10126.0 V02 Changes made. Was 13436. AM 28/10/1999 Thu 0100 (JM4)  
 10126.0 V02a in progress - note changed frequency  
 10127.0 M08 07921 09813 80673 CW 04/10/1999 Mon 1100 (ANUK)  
 10127.0 M08 98772 ?????? CW 08/10/1999 Fri 1100 (ANUK)  
 10127.0 M08 71653 01882 56702 CW 15/10/1999 Fri 1100 (ANUK)

10127.0 V02 Spanish Lady YL/SS - in progress, v.weak signal AM  
 29/10/1999 Fri 0900 (LA)  
 10154.0 XPH AM 15/10/1999 Fri 2020 (MH)  
 10155 XPH 26/10/1999 Tue 2020 (HFD)  
 10155.0 XPH 511x3 1 89 Groups AM 01/10/1999 Fri 2020 (ANUK)  
 10155.0 XPH AM 05/10/1999 Tue 2020 (MH)  
 10155.0 XPH AM 08/10/1999 Fri 2020 (MH)  
 10155.0 XPH Polytone stn nul msg. AM 15/10/1999 Fri 2020 (AB)  
 10155.0 XPH Polytone stn msg. AM 22/10/1999 Fri 2020 (AB)  
 10155.0 XPH Polytone station, null msg, very weak. AM 29/10/1999  
 Fri 2020 (AB)  
 10157.0 M10 111x3 31977x3 20x3 CW 08/10/1999 Fri 1400 (ANUK)  
 10157.0 M10E 111x3 85967x3 20x3 CW 04/10/1999 Mon 1400 (ANUK)  
 10157.0 M10E 111x3 30888x3 20x3 CW 06/10/1999 Wed 1400 (ANUK)  
 10157.0 M10E 111x3 82759x3 20x3 CW 11/10/1999 Mon 1400 (ANUK)  
 10157.0 M10E 111x3 31818x3 20x3 CW 13/10/1999 Wed 1400 (ANUK)  
 10157.0 M10E 111x3 17977x3 20x3 CW 15/10/1999 Fri 1400 (ANUK)  
 10157.0 M10E 111x3 93848x3 20x3 CW 18/10/1999 Mon 1400 (ANUK)  
 10226.0 M12 169x3 1 4461 92 Strange Echo CW 06/10/1999 Wed 0720  
 (ANUK)  
 10235.0 M08 In progress  
 10235.0 M08 in progress CW 31/10/1999 Sun 0400 (LA)  
 10236.0 M08 04682 27122 86822 CW 10/10/1999 Sun 0800 (ANUK)  
 10236.0 M08 86313 92573 03743 CW 17/10/1999 Sun 0800 (ANUK)  
 10248 M16 vvv 8BY 532/077/ 354/308/862/380/395 07/10/1999 Thu  
 1940 (HFD)  
 10248.0 M16 //12075 8BY 432/476 CW 01/10/1999 Fri 0150 (JM4)  
 10248.0 M16 //12075 8BY tfc 155/914/643. CW 03/10/1999 Sun 0140  
 10248.0 M16 //12075 8BY tfc 155/914/643 CW 03/10/1999 Sun 0140  
 10248.0 M16 //12075//14931 8BY tfc 661 CW 04/10/1999 Mon 0150 (JM4)  
 10248.0 M16 //12075//14931 8BY tfc 532/297/943 CW 05/10/1999 Tue  
 0150 (JM4)  
 10248.0 M16 //12075//14931 8BY w/tfc 058/532 CW 09/10/1999 Sat 0140  
 (JM4)  
 10248.0 M16 //12075 8BY w/tfc 629/532 CW 19/10/1999 Tue 0150 (JM4)  
 10248.0 M16 //12075//14931 8BY 057/532 CW 22/10/1999 Fri 0145 (JM4)  
 10248.0 M16 //12075 8BY tfc 058/626/ CW 23/10/1999 Sat 0140 (JM4)  
 10248.0 M16 //12075//14931 8BY w/tfc 992/467/682 CW 28/10/1999 Thu  
 0150 (JM4)  
 10248.0 M16 French Intel, VVV 8BY + msgs. CW 28/10/1999 Thu 0841  
 10352 E10 CI02, //8465 09/10/1999 Sat 1945 (HFD)  
 10352.0 E10 CI02 USB 01/10/1999 Fri 0145 (JM4)  
 10352.0 E10 CI02 USB 03/10/1999 Sun 0145 (JM4)  
 10352.0 E10 CI02 USB 03/10/1999 Sun 0145 (JM4)  
 10352.0 E10 CI02 USB 03/10/1999 Sun 0245 (JM4)  
 10352.0 E10 CI02. USB 03/10/1999 Sun 0245 (JM4)  
 10352.0 E10 CI02 USB 03/10/1999 Sun 0345 (JM4)  
 10352.0 E10 CI02. USB 03/10/1999 Sun 0345 (JM4)

10352.0 E10 CI02 USB 04/10/1999 Mon 0145 (JM4)  
10352.0 E10 //5629 CI02 USB 04/10/1999 Mon 0245 (JM4)  
10352.0 E10 CI02 USB 04/10/1999 Mon 0345 (JM4)  
10352.0 E10 CI02 USB 05/10/1999 Tue 0045 (JM4)  
10352.0 E10 CI02 USB 05/10/1999 Tue 0145 (JM4)  
10352.0 E10 CI02 USB 06/10/1999 Wed 1345 (JM4)  
10352.0 E10 CI02 USB 09/10/1999 Sat 0045 (JM4)  
10352.0 E10 CI02 USB 09/10/1999 Sat 0145 (JM4)  
10352.0 E10 //5629 CI02 USB 09/10/1999 Sat 0245 (JM4)  
10352.0 E10 CI02 USB 09/10/1999 Sat 0345 (JM4)  
10352.0 E10a CI02 USB 04/10/1999 Mon 2345 (GG)  
10352.0 E10a CI02 USB 08/10/1999 Fri 1545 (GG)  
10356.0 M22 //14649 4XZ marker CW 01/10/1999 Fri 0150 (JM4)  
10356.0 M22 //6379//14649 4XZ in tfc CW 02/10/1999 Sat 0100 (JM4)  
10356.0 M22 //6379//14649 4XZ marker CW 03/10/1999 Sun 0120 (JM4)  
10356.0 M22 //6379//14649 4XZ marker CW 05/10/1999 Tue 0020 (JM4)  
10356.0 M22 //6379//14649 4XZ marker CW 06/10/1999 Wed 0120 (JM4)  
10356.0 M22 //6379//14649 4XZ in tfc CW 08/10/1999 Fri 0120 (JM4)  
10356.0 M22 4XZ marker CW 09/10/1999 Sat 0020 (JM4)  
10356.0 M22 //6379//14649//18482 4XZ marker CW 13/10/1999 Wed 0100 (JM4)  
10356.0 M22 //14649 4XZ marker CW 14/10/1999 Thu 1340 (JM4)  
10356.0 M22 //6379//14649 4XZ in tfc CW 15/10/1999 Fri 0100 (JM4)  
10356.0 M22 //6379//14649 4XZ marker CW 19/10/1999 Tue 0145 (JM4)  
10356.0 M22 //6379 4XZ in tfc CW 22/10/1999 Fri 0100 (JM4)  
10356.0 M22 //6370 4XZ marker CW 23/10/1999 Sat 0000 (JM4)  
10356.0 M22 //6379//14649//18482 4XZ in tfc CW 27/10/1999 Wed 2300 (JM4)  
10356.0 M22 //14649//18482 4XZ marker CW 31/10/1999 Sun 1400 (JM4)  
10362.0 V07 148x3 000 AM 18/10/1999 Mon 2000 (ANUK)  
10367 V07 148 148 148 000 04/10/1999 Mon 2000 (HFD)  
10368.0 V07 148x3 000 AM 04/10/1999 Mon 2000 (ANUK)  
10368.0 V07 148x3 000 AM 11/10/1999 Mon 2000 (ANUK)  
10426.0 E03 Extremely weak. USB 12/10/1999 Tue 1500 (JM4)  
10426.0 E03 //12603//14487 rptg 95606 USB 18/10/1999 Mon 1400 (JM4)  
10433.0 Short zero. CW 09/10/1999 Sat 1900 (GD)  
10442.0 M42 FAPSI, callup. No msgs for VTX on link 00098. RTTY 26/10/1999 Tue 1540 (AB)  
10442.0 M42 FAPSI, wkg VTX on link 00098 in cw. RTTY 28/10/1999 Thu 1528 (AB)  
10445.0 V02 Spanish Lady YL/SS, very weak AM 11/10/1999 Mon 0300  
10446.0 V02a in progress AM 04/10/1999 Mon 0300 (JM4)  
10448.0 M08 57351 50712 93492 CW 01/10/1999 Fri 0800 (ANUK)  
10448.0 M08 U/R Transmission CW 04/10/1999 Mon 0800 (ANUK)  
10448.0 M08 62393 53441 54861 CW 06/10/1999 Wed 0800 (ANUK)  
10448.0 M08 54321 53443 54863 CW 08/10/1999 Fri 0800 (ANUK)  
10448.0 M08 04683 27123 86823 CW 11/10/1999 Mon 0800 (ANUK)  
10448.0 M08 86311 92571 03741 CW 15/10/1999 Fri 0800 (ANUK)



10448.0 M08 84203 69603 92213 CW 20/10/1999 Wed 0800 (ANUK)  
10448.0 M08 86922 36933 86692 CW 22/10/1999 Fri 0800 (ANUK)  
10536.0 M22 //6379//14649 4XZ mrkr. CW 03/10/1999 Sun 0120 (JM4)  
10566.0 M08 CW 08/10/1999 Fri 1300 (BUNKY)  
10583.0 E05 rptg 152 Count ? weak AM 12/10/1999 Tue 2100 (JM4)  
10620.0 M03 503/00 CW 04/10/1999 Mon 0800 (ANUK)  
10620.0 M03 503/00 CW 11/10/1999 Mon 0800 (ANUK)  
10620.0 M03 503/00 CW 18/10/1999 Mon 0800 (ANUK)  
10620.0 M40 CQ 747.547 HR 94 CW 01/10/1999 Fri 2000 (ANUK)  
10620.0 M40 CQ 747.559 HR 32 CW 02/10/1999 Sat 2000 (ANUK)  
10620.0 M40 CQ 747.278 HR 24 CW 04/10/1999 Mon 0800 (ANUK)  
10620.0 M40 CQ 747.243 HR 30 CW 09/10/1999 Sat 2000 (ANUK)  
10620.0 M40 CQ 747.243 HR 30 CW 10/10/1999 Sun 2000 (ANUK)  
10620.0 M40 CQ 747.384 HR 21 CW 11/10/1999 Mon 2000 (ANUK)  
10620.0 M40 CQ 747.384 HR 21 CW 12/10/1999 Tue 2000 (ANUK)  
10620.0 M40 CQ 747.741 HR 33 CW 17/10/1999 Sun 2000 (ANUK)  
10620.0 M40 CQ 747.831 HR 23 Very poor signal  
10620.0 M40 CQ 747.641 HR 33 CW 18/10/1999 Mon 2000 (ANUK)  
10620.0 M40 CQ 747.787 HR 22 CW 21/10/1999 Thu 2000 (ANUK)  
10642.0 S10E 75311 20 45434 18 91142 16 43938 17 USB 22/10/1999  
Fri 1300 (ANUK)  
10665.0 E05 //11491 AM 07/10/1999 Thu 0300 (BUNKY)  
10665.0 V05 //11491 rptg 916 Grupo 194 AM 04/10/1999 Mon 0300 (JM4)  
10665.0 V05 //11491 AM 14/10/1999 Thu 0300 (BUNKY)  
10665.0 V05 //11491.0 YL/SS rptg. 916 grupo 194 AM 28/10/1999 Thu  
0300 (LA)  
10712.0 X06 followed by message AM 01/10/1999 Fri 2011 (JE)  
10714.5 M08a in progress CW 05/10/1999 Tue 0200 (JM4)  
10714.5 M08a in progress CW 19/10/1999 Tue 0200 (JM4)  
10720.0 M03 503/00 CW 05/10/1999 Tue 0900 (ANUK)  
10720.0 M03 503/00 CW 12/10/1999 Tue 0900 (ANUK)  
10720.0 M03 503/00 CW 19/10/1999 Tue 0900 (ANUK)  
10727.0 E05 USB 10/10/1999 Sun 1721 (MH)  
10727.0 E05 USB 13/10/1999 Wed 1911 (MH)  
10727.0 E05 782 v.strong in the uk AM 25/10/1999 Mon 0017 (SG)  
10727.0 E05 782 AM 25/10/1999 Mon 0019 (SG)  
10727.0 E05 649 Count 70 v.strong in the uk AM 27/10/1999 Wed 0017  
10790.0 EQ8Q K repeated several times, then off air. CW  
26/10/1999 Tue 0907 (AB)  
10841.0 M12 289x3 1 9514 279 CW 01/10/1999 Fri 1906 (ANUK)  
10841.0 M12 289x3 1 1086 331 CW 17/10/1999 Sun 1908 (ANUK)  
10887.0 M12 840x3 000 CW 01/10/1999 Fri 1700 (ANUK)  
10887.0 M12 840x3 1 411 187 CW 15/10/1999 Fri 1700 (ANUK)  
10887.0 M12 840x3 1 9428 227 CW 22/10/1999 Fri 1700 (ANUK)  
10922.0 M10 555x3 127 16 801 26 CW 02/10/1999 Sat 0700 (ANUK)  
10922.0 M10 555x3 127 31 80138 CW 09/10/1999 Sat 0700 (ANUK)  
10922.0 M10 555x3 633 27 801 21 CW 16/10/1999 Sat 0700 (ANUK)  
11072.0 E05 Counting station, id 979. USB 28/10/1999 Thu 1800 (AB)

11166.0 V07 103x3 000 AM 08/10/1999 Fri 0600 (ANUK)  
11423.0 M13 714 = 181 22 = CW 15/10/1999 Fri 2000 (ANUK)  
11424.0 M13 714 = 181 22 = CW 14/10/1999 Thu 2000 (ANUK)  
11430.0 V13 AM 06/10/1999 Wed 1300 (JM4)  
11430.0 V13 AM 06/10/1999 Wed 1400 (JM4)  
11430.0 V13 AM 15/10/1999 Fri 1130 (JM4)  
11430.0 V13 AM 15/10/1999 Fri 1200 (JM4)  
11430.0 V13 AM 15/10/1999 Fri 1300 (JM4)  
11430.0 V13 AM 18/10/1999 Mon 1400 (JM4)  
11430.0 V13 AM 19/10/1999 Tue 1400 (JM4)  
11430.0 V13 AM 27/10/1999 Wed 1300 (JM4)  
11430.0 V13 AM 29/10/1999 Fri 1300 (JM4)  
11432.0 V02 Spanish Lady YL/SS - in progress, v.weak AM 29/10/1999  
Fri 0800 (LA)  
11433.0 M08 Already IP CW 05/10/1999 Tue 0800 (ANUK)  
11433.0 M08 77431 53442 54862 CW 07/10/1999 Thu 0800 (ANUK)  
11433.0 M08 92483 35431 16001 CW 14/10/1999 Thu 0800 (ANUK)  
11433.0 M08 86312 92572 03742 CW 16/10/1999 Sat 0800 (ANUK)  
11434.0 M12 169x3 1 4461 92 CW 06/10/1999 Wed 0700 (ANUK)  
11460.0 M42 FAPSI, cw callup + RTTY msgs to URO on link 60047.  
RTTY 26/10/1999 Tue 1620 (AB)  
11460.0 M42 FAPSI, cw callup + Rtty msgs to URO on link 60047. RTTY  
28/10/1999 Thu 1620 (AB)  
11460.0 M42 FAPSI, cw callup + Rtty msgs to URO on link 60047. RTTY  
28/10/1999 Thu 1620 (AB)  
11491.0 E05 //10665 AM 07/10/1999 Thu 0300 (BUNKY)  
11491.0 E05 AM 08/10/1999 Fri 2000 (BUNKY)  
11491.0 V05 //10665 rptg 916 Grupo 194 AM 04/10/1999 Mon 0300 (JM4)  
11491.0 V05 //10665 AM 14/10/1999 Thu 0300 (BUNKY)  
11491.0 V05 YL/SS in progress AM 18/10/1999 Mon 0300 (LA)  
11491.0 V05 //10665.0 YL/SS rptg. 916 grupo 194 AM 28/10/1999 Thu  
0300 (LA)  
11524.0 M13 253 = 184 22 = CW 22/10/1999 Fri 2000 (ANUK)  
11542 XPH 05/10/1999 Tue 2000 (HFD)  
11542 XPH 08/10/1999 Fri 2000 (HFD)  
11542 XPH 29/10/1999 Fri 2000 (HFD)  
11542.0 XPH 511x3 1 89 Groups AM 01/10/1999 Fri 2000 (ANUK)  
11542.0 XPH AM 05/10/1999 Tue 2000 (MH)  
11542.0 XPH AM 08/10/1999 Fri 2000 (MH)  
11542.0 XPH 511x3 1 73 Groups AM 08/10/1999 Fri 2000 (ANUK)  
11542.0 XPH 511x3 000 AM 12/10/1999 Tue 2000 (ANUK)  
11542.0 XPH Polytone stn msg. AM 15/10/1999 Fri 2000 (AB)  
11542.0 XPH 511x3 000 AM 15/10/1999 Fri 2000 (ANUK)  
11542.0 XPH 511x3 000 AM 19/10/1999 Tue 2000 (ANUK)  
11545 E03 80795, //15682, 13375 05/10/1999 Tue 1600 (HFD)  
11545.0 E03 Linc Pcher id 77604. USB 15/10/1999 Fri 2000 (AB)  
11545.0 E03 just caught tune at end USB 16/10/1999 Sat 2045 (ARQ3)  
11545.0 E03 //12603//13375 rptg 51327 USB 30/10/1999 Sat 1500 (JM4)

11545.0 E03 //14487//15682 rptg 21523 USB 31/10/1999 Sun 1400 (JM4)  
 11562.0 XPH Polytome station, null msg., very weak. AM 29/10/1999  
 Fri 2000 (AB)  
 11564.0 E05 710 COUNT 111 quick fingerwork required to obtain both  
 counts!! AM 25/10/1999 Mon 0019 (SG)  
 11566.0 V02 AM 08/10/1999 Fri 0300 (BUNKY)  
 11566.0 V02a A 51995 50051 83091 AM 01/10/1999 Fri 0300 (JM4)  
 11623.0 XPH 645x3 000 AM 08/10/1999 Fri 0600 (ANUK)  
 11637.0 M42 FAPSI. No tfc, just 46`s to GMN CW 06/10/1999 Wed 0045  
 (BR)  
 11637.0 M42 GMN QRU RTTY 28/10/1999 Thu 0045 (BUNKY)  
 11947.0 M10E 111x3 92380x3 20x3 CW 10/10/1999 Sun 1655 (ANUK)  
 11967.0 M10E 111x3 09390x3 20x3 New Frequency CW 01/10/1999 Fri 1655  
 (ANUK)  
 11967.0 M10E 111x3 54310x3 20x3 CW 02/10/1999 Sat 1655 (ANUK)  
 11967.0 M10E 111x3 05320x3 20x3 CW 03/10/1999 Sun 1655 (ANUK)  
 11967.0 M10E 111x3 92350x3 20x3 CW 04/10/1999 Mon 1655 (ANUK)  
 11967.0 M10E 111x3 58350x3 20x3 CW 05/10/1999 Tue 1655 (ANUK)  
 11967.0 M10E 111x3 11320x3 20x3 CW 06/10/1999 Wed 1655 (ANUK)  
 11967.0 M10E 111x3 28132x3 20x3 CW 08/10/1999 Fri 1655 (ANUK)  
 11967.0 M10E 111x3 28132x3 20x3 CW 09/10/1999 Sat 1655 (ANUK)  
 11967.0 M10E 111x3 29201x3 20x3 CW 11/10/1999 Mon 1655 (ANUK)  
 11967.0 M10E 111x3 50301x3 20x3 CW 12/10/1999 Tue 1655 (ANUK)  
 11967.0 M10E 111x3 66182x3 20x3 CW 13/10/1999 Wed 1655 (ANUK)  
 11967.0 M10E 111x3 42350x3 20x3 CW 14/10/1999 Thu 1655 (ANUK)  
 11967.0 M10E 111x3 83360x3 20x3 CW 15/10/1999 Fri 1655 (ANUK)  
 11967.0 M10E 111x3 74320x3 20x3 CW 17/10/1999 Sun 1655 (ANUK)  
 11967.0 M10E 111x3 41330x3 20x3 CW 18/10/1999 Mon 1655 (ANUK)  
 11967.0 M10E 111x3 75093x3 20x3 CW 19/10/1999 Tue 1655 (ANUK)  
 11967.0 M10E 111x3 05162x3 20x3 CW 20/10/1999 Wed 1655 (ANUK)  
 11967.0 M10E 111x3 55162x3 20x3 CW 22/10/1999 Fri 1655 (ANUK)  
 11967.0 XPH 511x3 1 75 Groups AM 05/10/1999 Tue 2000 (ANUK)  
 12066.0 V07 103x3 000 AM 08/10/1999 Fri 0610 (ANUK)  
 12075.0 M16 //10248 8BY 432/476 CW 01/10/1999 Fri 0150 (JM4)  
 12075.0 M16 //10248 8BY tfc 155/914/643 CW 03/10/1999 Sun 0140  
 12075.0 M16 //12048 8BY tfc 155/914/643. CW 03/10/1999 Sun 0140  
 12075.0 M16 //10248//14931 8BY tfc 661 CW 04/10/1999 Mon 0150 (JM4)  
 12075.0 M16 //10248//14931 8BY tfc 532/297/943 CW 05/10/1999 Tue  
 0150 (JM4)  
 12075.0 M16 //10248//14931 8BY w/tfc 058/532 CW 09/10/1999 Sat 0140  
 (JM4)  
 12075.0 M16 //10248 8BY w/tfc 629/532  
 12075.0 M16 //10248//14931 8BY 057/532 CW 22/10/1999 Fri 0145 (JM4)  
 12075.0 M16 //10248 8BY tfc 058/626/ CW 23/10/1999 Sat 0140 (JM4)  
 12075.0 M16 //10248//14931 8BY w/tfc 992/467/682 CW 28/10/1999 Thu  
 0150 (JM4)  
 12075.0 M16 French intel, VVV 8BY + msgs. CW 28/10/1999 Thu 0840  
 12102.0 XPH 158x3 1 249 groups AM 05/10/1999 Tue 0600 (ANUK)

12102.0 XPH 158x3 1 158 groups AM 12/10/1999 Tue 0600 (ANUK)  
12102.0 XPH 158x3 1 135 Groups AM 15/10/1999 Fri 0600 (ANUK)  
12102.0 XPH Msg. AM 29/10/1999 Fri 0600 (AB)  
12103.0 XPH AM 15/10/1999 Fri 0600 (AB)  
12105.0 XPH 158x3 1 248 Groups. AM 01/10/1999 Fri 0600 (GD)  
12105.0 XPH 158x3 1 248 Groups AM 01/10/1999 Fri 0600 (ANUK)  
12132.0 M12 749x3 1 1446 135 CW 04/10/1999 Mon 1630 (ANUK)  
12132.0 M12 963x3 1 1446 135 CW 04/10/1999 Mon 1800 (ANUK)  
12132.0 M12 963x3 1 133 74 CW 07/10/1999 Thu 1800 (ANUK)  
12132.0 M12 963x3 1 4761 132 CW 11/10/1999 Mon 1630 (ANUK)  
12132.0 M12 963x3 1 4761 132 CW 11/10/1999 Mon 1800 (ANUK)  
12132.0 m12 963x3 1 7629 143 CW 14/10/1999 Thu 1630 (ANUK)  
12132.0 M12 963x3 1 7629 143 CW 14/10/1999 Thu 1800 (ANUK)  
12132.0 M12 963x3 1 9372 146 CW 18/10/1999 Mon 1630 (ANUK)  
12132.0 M12 963x3 1 9372 146 CW 18/10/1999 Mon 1800 (ANUK)  
12132.0 M12 963 963 1 + msg. CW 28/10/1999 Thu 1800 (AB)  
12175.0 E05 USB 13/10/1999 Wed 1929 (MH)  
12175.0 E05 782 count 183 v.strong in the uk AM 26/10/1999 Tue 0017  
12175.1 E05 782 Count 183 AM 25/10/1999 Mon 0019 (SG)  
12175.1 E05 649 v.strong in the uk AM 27/10/1999 Wed 0017 (SG)  
12176.0 M42 FAPSI msg to NXQ on link 00052 RTTY 25/10/1999 Mon 1315  
(AB)  
12180.0 M42 FAPSI, RAU QSO tape on link 00070. No msgs. RTTY  
29/10/1999 Fri 1317 (AB)  
12180.0 V02 AM 20/10/1999 Wed 0200 (BUNKY)  
12180.0 V02a A 21203 00962 50221 AM 13/10/1999 Wed 0200 (JM4)  
12185.0 S06 724-851/47 851 also used by E6 this month AM  
24/10/1999 Sun 1700 (JE)  
12197.0 E05 598 v.weak in the uk AM 25/10/1999 Mon 0020 (SG)  
12214.0 M12 289x3 1 9514 279 CW 01/10/1999 Fri 1840 (ANUK)  
12214.0 M12 289x3 1 3443 241 CW 08/10/1999 Fri 1840 (ANUK)  
12215.0 V02 AM 08/10/1999 Fri 0200 (BUNKY)  
12215.0 V02a A 51995 50051 83091 AM 01/10/1999 Fri 0200 (JM4)  
12215.0 V02a A 12552 92853 14592  
12215.0 V02a A 21201 89642 83093  
12215.0 V02a A 12553 93881 14593  
12215.0 V02a A 21204 50222 55262 AM 15/10/1999 Fri 0200 (JM4)  
12215.0 V02a A 21205 50482 04541 AM 22/10/1999 Fri 0200 (JM4)  
12215.0 V02a A 56322 93883 29092 AM 23/10/1999 Sat 0000 (JM4)  
12295.0 M10 555x3 074 12 431 50 CW 08/10/1999 Fri 1100 (ANUK)  
12300.0 M40 CQ 515.249 HR 38 CW 19/10/1999 Tue 1700 (ANUK)  
12300.0 M40 CQ 515.249 HR 33 CW 20/10/1999 Wed 1700 (ANUK)  
12300.0 M40 CQ 515.894 HR 29 CW 22/10/1999 Fri 1700 (ANUK)  
12300.0 V05 //14421.0 YL/SS Rptg.580 Grupo ??? AM 16/10/1999 Sat  
0300 (LA)  
12300.5 V05 //14421 rptg 580 Grupo 124 AM 09/10/1999 Sat 0300 (JM4)  
12300.5 V05 //14421.0 rptg. 580 grupo 124 AM 19/10/1999 Tue 0300  
12300.5 V05 //14421 rptg 580 Grupo 124 AM 19/10/1999 Tue 0300 (JM4)

12300.5 V05 //14421 rptg 580 Grupo 124 AM 23/10/1999 Sat 0300 (JM4)  
12603 E03 21523, //16475, 14487 27/10/1999 Wed 1700 (HFD)  
12603 E03 21523, //16475, 14487 28/10/1999 Thu 1800 (HFD)  
12603.0 E03 //13375 extremely weak  
12603.0 E03 //10426//14487 rptg 95606 USB 18/10/1999 Mon 1400 (JM4)  
12603.0 E03 //14487//16314 rptg 10890 USB 19/10/1999 Tue 1400 (JM4)  
12603.0 E03 //11545//13375 rptg 51327 USB 30/10/1999 Sat 1500 (JM4)  
12603.0 E03 //13375 weak USB 30/10/1999 Sat 1600 (JM4)  
12949.0 M40 CQ 747.278 HR 24 CW 04/10/1999 Mon 0830 (ANUK)  
13366.0 M42 msg to POU on link 00110 RTTY 13/10/1999 Wed 1730 (AB)  
13366.0 M42 NIL MSG TO POU  
13366.0 M42 CW callup for POU. No msgs. Link id 00190 CW 27/10/1999  
Wed 1730 (AB)  
13375 E03 80795, //15682, 11545 05/10/1999 Tue 1600 (HFD)  
13375.0 E03 Lincolnshire Poacher. Loud and clear in L.A. USB  
04/10/1999 Mon 1502 (MV)  
13375.0 E03 rptg 36518 USB 08/10/1999 Fri 1500 (JM4)  
13375.0 E03 USB 10/10/1999 Sun 1710 (MH)  
13375.0 E03 //11545//12603 rptg 51327 USB 30/10/1999 Sat 1500 (JM4)  
13375.0 E03 //12603 weak  
13390.0 S06 in progress ... 469/326(?) USB 09/10/1999 Sat 1705  
13423.0 XPH 645x3 000 AM 08/10/1999 Fri 0610 (ANUK)  
13444.0 E05 AM 23/10/1999 Sat 1800 (BUNKY)  
13450.0 E05 //14448 AM 08/10/1999 Fri 1700 (BUNKY)  
13451.0 M42 JMS QTC 1/721 RTTY 08/10/1999 Fri 2244 (BUNKY)  
13452.0 M42 JMS QTC 1/67 RTTY 18/10/1999 Mon 2238 (BUNKY)  
13452.0 M42 JMS QTC 3/460 RTTY 19/10/1999 Tue 2242 (BUNKY)  
13452.0 M42 JMS QTC 1/595 RTTY 29/10/1999 Fri 2243 (BUNKY)  
13452.0 V05 //15651 rptg 778 Grupo 121 AM 01/10/1999 Fri 0100 (JM4)  
13452.0 V05 //15651 rptg 778 Grupo 121 AM 08/10/1999 Fri 0100 (JM4)  
13452.0 V05 //15651 rptg 375 Grupo 197 AM 13/10/1999 Wed 0100 (JM4)  
13452.0 V05 //15651 rptg 375 Grupo 197 AM 15/10/1999 Fri 0100 (JM4)  
13452.0 V05 //15651 rptg 375 Grupo 197 AM 20/10/1999 Wed 0100 (JM4)  
13452.0 V05 //15651 AM 20/10/1999 Wed 0100 (BUNKY)  
13452.0 V05 //15651 AM 22/10/1999 Fri 0100 (BUNKY)  
13452.0 V05 //15651 rptg 375 Grupo 197 AM 22/10/1999 Fri 0100 (JM4)  
13465.0 E05 Counting station, id 979. USB 28/10/1999 Thu 1800 (AB)  
13502.0 XPH Cw callup AAUN + polytone msgs. AM 29/10/1999 Fri 0620  
13503.0 XPH 158x3 1 07397 00243 AM 01/10/1999 Fri 0620 (VM)  
13503.0 XPH AM 15/10/1999 Fri 0620 (AB)  
13505.0 XPH 158x3 1 248 Groups AM 01/10/1999 Fri 0620 (ANUK)  
13505.0 XPH AM 01/10/1999 Fri 0620 (GD)  
13533.0 E10 EZI USB 01/10/1999 Fri 1700 (GG)  
13533.0 E10 EZI 41 YAHQE USB 05/10/1999 Tue 1700 (GG)  
13533.0 E10 EZI 41 YAHQE USB 08/10/1999 Fri 1700 (GG)  
13544.0 M12 963x3 1 751 69 CW 21/10/1999 Thu 1650 (ANUK)  
13555.0 E05 //15732 rptg 112 Count 215 AM 08/10/1999 Fri 1400 (JM4)  
13555.0 E05 //15732 AM 08/10/1999 Fri 1400 (BUNKY)

13555.0 E05 //15732 AM 10/10/1999 Sun 1400 (BUNKY)  
13555.0 E05 //15732 AM 31/10/1999 Sun 1400 (BUNKY)  
13750.0 V13 AM 04/10/1999 Mon 1600 (JM4)  
13750.0 V13 AM 06/10/1999 Wed 1330 (JM4)  
13750.0 V13 AM 06/10/1999 Wed 1400 (JM4)  
13750.0 V13 AM 08/10/1999 Fri 1400 (JM4)  
13750.0 V13 AM 08/10/1999 Fri 1500 (JM4)  
13750.0 V13 AM 12/10/1999 Tue 1500 (JM4)  
13750.0 V13 AM 13/10/1999 Wed 1400 (JM4)  
13750.0 V13 AM 14/10/1999 Thu 1300 (JM4)  
13750.0 V13 AM 14/10/1999 Thu 1330 (JM4)  
13750.0 V13 AM 15/10/1999 Fri 1300 (JM4)  
13750.0 V13 AM 18/10/1999 Mon 1400 (JM4)  
13750.0 V13 AM 19/10/1999 Tue 1400 (JM4)  
13906.0 E05 //15732 ?? (very weak here) AM 06/10/1999 Wed 1200 (BUNKY)  
13906.0 E05 //15732 rptg 749 Count 215 AM 06/10/1999 Wed 1200 (JM4)  
13906.0 E05 //15732 AM 10/10/1999 Sun 1200 (BUNKY)  
13906.0 E05 //15732 rptg 749 Count 215 AM 13/10/1999 Wed 1200 (JM4)  
13906.0 E05 barely audible AM 20/10/1999 Wed 1200 (JM4)  
13925.0 X06 no message AM 01/10/1999 Fri 1705 (JE)  
14421.0 V05 //12300.5 rptg 580 Grupo 124 AM 09/10/1999 Sat 0300  
14421.0 V05 //12300.0 YL/SS Rptg.580 Grupo ??? AM 16/10/1999 Sat 0300 (LA)  
14421.0 V05 //12300.5 rptg 580 Grupo 124 AM 19/10/1999 Tue 0300  
14421.0 V05 //12300.5 rptg. 580 grupo 124 AM 19/10/1999 Tue 0300  
14421.0 V05 //12300.5 rptg 580 Grupo 124 AM 23/10/1999 Sat 0300  
14425.0 E05 USB 03/10/1999 Sun 2129 (MH)  
14448.0 E05 //13450 AM 08/10/1999 Fri 1700 (BUNKY)  
14448.0 E05 66 USB 10/10/1999 Sun 1707 (MH)  
14487 E03 21523, //16475, 12603 27/10/1999 Wed 1700 (HFD)  
14487 E03 21523, //16475, 12603 28/10/1999 Thu 1800 (HFD)  
14487 E03 51327, //16084, 15682 29/10/1999 Fri 1200 (HFD)  
14487.0 E03 //15682//16084 rptg 11322 USB 03/10/1999 Sun 1300 (JM4)  
14487.0 E03 weak USB 06/10/1999 Wed 1200 (JM4)  
14487.0 E03 //15682//16084 rptg 32010 USB 06/10/1999 Wed 1400 (JM4)  
14487.0 E03 //15682//16084 rptg 34425 USB 13/10/1999 Wed 1200 (JM4)  
14487.0 E03 //15682//16084 I/P 14/16 jammed USB 13/10/1999 Wed 1300 (JM4)  
14487.0 E03 //15682//16084 rptg 04343 USB 13/10/1999 Wed 1400 (JM4)  
14487.0 E03 //16084. USB 13/10/1999 Wed 1535 (FVG)  
14487.0 E03 USB 13/10/1999 Wed 1744 (MH)  
14487.0 E03 //15682//16084 rptg 11322 USB 14/10/1999 Thu 1300 (JM4)  
14487.0 E03 //15682//16084 rptg 36518 USB 14/10/1999 Thu 1400 (JM4)  
14487.0 E03 //15682//16084 rptg 51327 USB 15/10/1999 Fri 1200 (JM4)  
14487.0 E03 //15682//16084 rptg 77604 USB 15/10/1999 Fri 1300 (JM4)  
14487.0 E03 //10426//12603 rptg 95606 USB 18/10/1999 Mon 1400 (JM4)  
14487.0 E03 //15682//16084 rptg 77604 USB 19/10/1999 Tue 1300 (JM4)

14487.0 E03 //12603//16314 rptg 10890 USB 19/10/1999 Tue 1400 (JM4)  
14487.0 E03 //15682//16084 in progress USB 20/10/1999 Wed 1300  
14487.0 E03 //15682//16084 rptg 70457 USB 20/10/1999 Wed 1400 (JM4)  
14487.0 E03 //15682//16084 rptg 51327 USB 25/10/1999 Mon 1200 (JM4)  
14487.0 E03 //15682//16084 rptg 71604 USB 25/10/1999 Mon 1300 (JM4)  
14487.0 E03 //15682//16084 rptg 77604 USB 27/10/1999 Wed 1300 (JM4)  
14487.0 E03 //15682//16084 rptg 70457 USB 27/10/1999 Wed 1400 (JM4)  
14487.0 E03 Linc Pcher, id 10898. USB 28/10/1999 Thu 1600 (AB)  
14487.0 E03 //15682//16084 rptg 77604 USB 29/10/1999 Fri 1300 (JM4)  
14487.0 E03 //11545//15682 rptg 21523 USB 31/10/1999 Sun 1400 (JM4)  
14550.0 E17 104 group msg for 849. AM 05/10/1999 Tue 0100 (JM4)  
14577.0 E05 //16198 ?? (very weak here) AM 06/10/1999 Wed 1200  
(BUNKY)  
14577.0 E05 //16198 rptg 455 Count 215 AM 06/10/1999 Wed 1200 (JM4)  
14577.0 E05 //16198 rptg 495 Count ? weak AM 13/10/1999 Wed 1200  
14580.0 E17 rptg 849; then 327 327 104 104 AM 05/10/1999 Tue 0100  
14600.0 E05 598 v.weak in the uk AM 25/10/1999 Mon 0020 (SG)  
14649.0 M22 //10356 4XZ marker CW 01/10/1999 Fri 0150 (JM4)  
14649.0 M22 //6379//10356 4XZ in tfc CW 02/10/1999 Sat 0100 (JM4)  
14649.0 M22 //6379//10248 4XZ mrkr. CW 03/10/1999 Sun 0112 (JM4)  
14649.0 M22 //6379//10248 4XZ marker CW 03/10/1999 Sun 0120 (JM4)  
14649.0 M22 //6379 4XZ marker CW 04/10/1999 Mon 0040 (JM4)  
14649.0 M22 //6379//10356 4XZ marker CW 05/10/1999 Tue 0020 (JM4)  
14649.0 M22 //6379//10356 4XZ marker CW 06/10/1999 Wed 0120 (JM4)  
14649.0 M22 //18482 4XZ in tfc CW 06/10/1999 Wed 1400 (JM4)  
14649.0 M22 //6379//10356 4XZ in tfc CW 08/10/1999 Fri 0120 (JM4)  
14649.0 M22 //6379//10356//18482 4XZ marker CW 09/10/1999 Sat 0020  
(JM4)  
14649.0 M22 //6379//10356//18482 4XZ marker CW 13/10/1999 Wed 0100  
(JM4)  
14649.0 M22 //10356 4XZ marker CW 14/10/1999 Thu 1340 (JM4)  
14649.0 M22 //6379//10356 4XZ in tfc CW 15/10/1999 Fri 0100 (JM4)  
14649.0 M22 //6379//10356 4XZ marker CW 19/10/1999 Tue 0145 (JM4)  
14649.0 M22 //6379//10356//18482 4XZ in tfc CW 27/10/1999 Wed 2300  
(JM4)  
14649.0 M22 //10356//18482 4XZ marker CW 31/10/1999 Sun 1400 (JM4)  
14731.0 M42 BPA QRU (no tfc) RTTY 08/10/1999 Fri 1515 (BUNKY)  
14731.0 M42 BPA QRU RTTY 16/10/1999 Sat 1515 (BUNKY)  
14739.0 E05 //16198 AM 08/10/1999 Fri 1300 (BUNKY)  
14739.0 E05 //16198 in progress AM 15/10/1999 Fri 1300 (JM4)  
14739.0 E05 //16198 AM 16/10/1999 Sat 1300 (BUNKY)  
14739.0 E05 //16198 rptg 715 Count 215 AM 19/10/1999 Tue 1300 (JM4)  
14739.0 E05 //16198 rptg 622 Count 215 AM 29/10/1999 Fri 1300 (JM4)  
14802.0 XPH Cw callup AAUN + polytone msgs. AM 29/10/1999 Fri 0640  
14805 XPH AM 01/10/1999 Fri 0640 (GD)  
14805.0 XPH 158x3 1 248 Groups AM 01/10/1999 Fri 0640 (ANUK)  
14843.0 M42 JMS QTC 1/721 RTTY 08/10/1999 Fri 2230 (BUNKY)  
14843.0 M42 JMS QTC 3/460 RTTY 19/10/1999 Tue 2230 (BUNKY)

14843.0 M42 JMS QRU RTTY 20/10/1999 Wed 2230 (BUNKY)  
14930 M16 vvv 8BY 059/195/ 281/872/116 29/10/1999 Fri 1040 (HFD)  
14931.0 M16 //10248//12075 8BY tfc 661 CW 04/10/1999 Mon 0150 (JM4)  
14931.0 M16 //10248//12075 8BY tfc 532/297/943 CW 05/10/1999 Tue  
0150 (JM4)  
14931.0 M16 //10248//12075 8BY w/tfc 058/532 CW 09/10/1999 Sat 0140  
(JM4)  
14931.0 M16 //18416//20945 8BY tfc 371/ CW 14/10/1999 Thu 1345  
14931.0 M16 //10248//12075 8BY 057/532 CW 22/10/1999 Fri 0145 (JM4)  
14931.0 M16 //10248//12075 8BY w/tfc 992/467/682 CW 28/10/1999 Thu  
0150 (JM4)  
14931.0 M16 French intel, VVV 8BY + msgs. CW 28/10/1999 Thu 0842  
14941.0 M42 WNY QTC 1/100 RTTY 08/10/1999 Fri 1808 (BUNKY)  
14980.0 M42 FAPSI Moscow. Null msg to RAU on link 00070. RTTY  
25/10/1999 Mon 1310 (AB)  
14980.0 M42 FAPSI Moscow, RAU 4646464646 TAPE. No msgs. Link 00070.  
RTTY 26/10/1999 Tue 1310 (AB)  
14980.0 M42 FAPSI Moscow, RAU 464646 tape. No msgs. RTTY 27/10/1999  
Wed 1410 (AB)  
14980.0 M42 FAPSI, RAU QSO tape on link 00070. No msgs. RTTY  
29/10/1999 Fri 1300 (AB)  
14980.0 M42 RAU QRU RTTY 30/10/1999 Sat 1310 (BUNKY)  
15388.0 V13 AM 03/10/1999 Sun 1300 (JM4)  
15651.0 V05 //13452 rptg 778 Grupo 121 AM 01/10/1999 Fri 0100 (JM4)  
15651.0 V05 //13452 rptg 778 Grupo 121  
15651.0 V05 //13452 rptg 375 Grupo 197 AM 13/10/1999 Wed 0100 (JM4)  
15651.0 V05 //13452 rptg 375 Grupo 197 AM 15/10/1999 Fri 0100 (JM4)  
15651.0 V05 //13452 AM 20/10/1999 Wed 0100 (BUNKY)  
15651.0 V05 //13452 rptg 375 Grupo 197 AM 20/10/1999 Wed 0100 (JM4)  
15651.0 V05 //13452 rptg 375 Grupo 197  
15651.0 V05 //13452 AM 22/10/1999 Fri 0100 (BUNKY)  
15682 E03 80795, //13375, 11545 05/10/1999 Tue 1600 (HFD)  
15682 E03 51327, //16084, 14487 29/10/1999 Fri 1200 (HFD)  
15682.0 E03 //14487//16084 rptg 11322 USB 06/10/1999 Wed 1300 (JM4)  
15682.0 E03 //14487//16084 rptg 32010 USB 06/10/1999 Wed 1400 (JM4)  
15682.0 E03 //14487//16084 rptg 34425 USB 08/10/1999 Fri 1400 (JM4)  
15682.0 E03 //14487//16084 rptg 34425 USB 13/10/1999 Wed 1200 (JM4)  
15682.0 E03 //14487//16084 I/P 14/16 jammed USB 13/10/1999 Wed 1300  
(JM4)  
15682.0 E03 //14487//16084 rptg 04343 USB 13/10/1999 Wed 1400 (JM4)  
15682.0 E03 //14487//16084 rptg 11322 USB 14/10/1999 Thu 1300 (JM4)  
15682.0 E03 //14487//16084 rptg 36518 USB 14/10/1999 Thu 1400 (JM4)  
15682.0 E03 //14487//16084 rptg 51327 USB 15/10/1999 Fri 1200 (JM4)  
15682.0 E03 //14487//16084 rptg 77604 USB 15/10/1999 Fri 1300 (JM4)  
15682.0 E03 //14487//16084 rptg 77604 USB 19/10/1999 Tue 1300 (JM4)  
15682.0 E03 //14487//16084 in progress USB 20/10/1999 Wed 1300  
15682.0 E03 //14487//16084 rptg 70457 USB 20/10/1999 Wed 1400 (JM4)  
15682.0 E03 //14487//16084 rptg 51327 USB 25/10/1999 Mon 1200 (JM4)



15682.0 E03 //14487//16084 rptg 71604 USB 25/10/1999 Mon 1300 (JM4)  
15682.0 E03 //14487//16084 rptg 77604 USB 27/10/1999 Wed 1300 (JM4)  
15682.0 E03 //14487//16084 rptg 70457 USB 27/10/1999 Wed 1400 (JM4)  
15682.0 E03 //14487//16084 rptg 77604 USB 29/10/1999 Fri 1300 (JM4)  
15682.0 E03 //11545//14487 rptg 21523 USB 31/10/1999 Sun 1400 (JM4)  
15732.0 E05 //13906 rptg 749 Count 215 AM 06/10/1999 Wed 1200 (JM4)  
15732.0 E05 //13555 AM 08/10/1999 Fri 1400 (BUNKY)  
15732.0 E05 //13555 rptg 112 Count 215 AM 08/10/1999 Fri 1400 (JM4)  
15732.0 E05 //13906 AM 10/10/1999 Sun 1200 (BUNKY)  
15732.0 E05 //13555 AM 10/10/1999 Sun 1400 (BUNKY)  
15732.0 E05 //13906 rptg 749 Count 215 AM 13/10/1999 Wed 1200 (JM4)  
15732.0 E05 //13555 AM 31/10/1999 Sun 1400 (BUNKY)  
15822.0 E05 very weak AM 08/10/1999 Fri 1600 (BUNKY)  
16008.0 M42 FAPSI 500/75 link nr 10163. QSY from primary freq of  
17473. RTTY 28/10/1999 Thu 0945 (JD)  
16084 E03 51327, //15682, 14487 29/10/1999 Fri 1200 (HFD)  
16084.0 E03 //14487//15682 rptg 11322 USB 06/10/1999 Wed 1300 (JM4)  
16084.0 E03 //14487//15682 rptg 32010 USB 06/10/1999 Wed 1400 (JM4)  
16084.0 E03 //14487//15682 rptg 34425 USB 08/10/1999 Fri 1400 (JM4)  
16084.0 E03 //14487//15682 rptg 34425 USB 13/10/1999 Wed 1200 (JM4)  
16084.0 E03 //14487//15682 I/P 14/16 jammed USB 13/10/1999 Wed 1300  
(JM4)  
16084.0 E03 //14487//15682 rptg 04343 USB 13/10/1999 Wed 1400 (JM4)  
16084.0 E03 //14487//15682 rptg 11322 USB 14/10/1999 Thu 1300 (JM4)  
16084.0 E03 //14487//15682 rptg 36518 USB 14/10/1999 Thu 1400 (JM4)  
16084.0 E03 //14487//15682 rptg 51327 USB 15/10/1999 Fri 1200 (JM4)  
16084.0 E03 //14487//15682 rptg 77604 USB 15/10/1999 Fri 1300 (JM4)  
16084.0 E03 //14487//15682 rptg 77604 USB 19/10/1999 Tue 1300 (JM4)  
16084.0 E03 //14487//15682 in progress USB 20/10/1999 Wed 1300  
16084.0 E03 //14487//15682 rptg 70457 USB 20/10/1999 Wed 1400 (JM4)  
16084.0 E03 //14487//15682 rptg 51327 USB 25/10/1999 Mon 1200 (JM4)  
16084.0 E03 //14487//15682 rptg 71604 USB 25/10/1999 Mon 1300 (JM4)  
16084.0 E03 //14487//15682 rptg 77604 USB 27/10/1999 Wed 1300 (JM4)  
16084.0 E03 //14487//15682 rptg 70457 USB 27/10/1999 Wed 1400 (JM4)  
16084.0 E03 //14487//15682 rptg 77604 USB 29/10/1999 Fri 1300 (JM4)  
16084.0 M03 Linc Pcher, id 70457. USB 27/10/1999 Wed 1400 (AB)  
16100.0 M40 CQ 515.573 HR 26 CW 06/10/1999 Wed 1730 (ANUK)  
16198.0 E05 //14577 rptg 455 Count 215 AM 06/10/1999 Wed 1200 (JM4)  
16198.0 E05 //14739 AM 08/10/1999 Fri 1300 (BUNKY)  
16198.0 E05 //14577 rptg 495 Count ? weak AM 13/10/1999 Wed 1200  
16198.0 E05 //14739 in progress AM 15/10/1999 Fri 1300 (JM4)  
16198.0 E05 //14739 AM 16/10/1999 Sat 1300 (BUNKY)  
16198.0 E05 //14739 rptg 715 Count 215 AM 19/10/1999 Tue 1300 (JM4)  
16198.0 E05 //14739 rptg 622 Count 215 AM 29/10/1999 Fri 1300 (JM4)  
16223.0 M42 FAPSI, cw callup + msg to UXW on link 40034. RTTY  
26/10/1999 Tue 0930 (AB)  
16223.0 M42 FAPSI, msg to UXW on link 40034. RTTY 28/10/1999 Thu  
0930 (AB)

16250.0 E07 USB 17/10/1999 Sun 1510 (MH)  
16314.0 E03 //12603//14487 rptg 10890 USB 19/10/1999 Tue 1400 (JM4)  
16475 E03 21523, //14487, 12603 27/10/1999 Wed 1700 (HFD)  
16475 E03 21523, //14487, 12603 28/10/1999 Thu 1800 (HFD)  
17050.0 M22 //10046 4XZ marker CW 02/10/1999 Sat 0100 (JM4)  
17050.0 M22 //10046 4XZ in tfc CW 03/10/1999 Sun 0120 (JM4)  
17050.0 M22 //10046 4XZ in tfc. CW 03/10/1999 Sun 0120 (JM4)  
17050.0 M22 4XZ marker CW 06/10/1999 Wed 1400 (JM4)  
17050.0 M22 //10046 4XZ marker CW 08/10/1999 Fri 0120 (JM4)  
17050.0 M22 //10046 4XZ in tfc CW 09/10/1999 Sat 0020 (JM4)  
17050.0 M22 //10046 4XZ marker CW 13/10/1999 Wed 0100 (JM4)  
17050.0 M22 //10046 4XZ marker CW 14/10/1999 Thu 1340 (JM4)  
17050.0 M22 4XZ in traffic CW 27/10/1999 Wed 1400 (JM4)  
17050.0 M22 //8437//10046 4XZ marker CW 27/10/1999 Wed 2300 (JM4)  
17050.0 M22 //8437//10046 4XZ in tfc CW 31/10/1999 Sun 1400 (JM4)  
17410.0 E10 EZI 36 FIAWR USB 04/10/1999 Mon 0930 (GG)  
17410.0 E10 EZI 9 PMAIG USB 04/10/1999 Mon 1130 (GG)  
17410.0 E10 EZI 49 QCCLG USB 05/10/1999 Tue 0930 (GG)  
17410.0 E10 EZI 89 JCOVQ USB 08/10/1999 Fri 1530 (GG)  
17410.0 E10 EZI 49 QCCLG USB 09/10/1999 Sat 0930 (GG)  
17410.0 E10 EZI 55 AGHCC USB 15/10/1999 Fri 0930 (GG)  
17410.0 E10 Israeli intel. EZI + msgs. AM 28/10/1999 Thu 0830 (AB)  
17430.0 M42 FAPSI, msgs on link 30044. RTTY 26/10/1999 Tue 0640  
17463.0 M42 FAPSI rtty 500/75 link 10163. RTTY 01/10/1999 Fri 1745  
17473.0 M42 FAPSI rtty 500/57 link 10163. RTTY 01/10/1999 Fri 0915  
17473.0 M42 FAPSI, cw callup = msgs to Udz 27 on link 10163. RTTY  
26/10/1999 Tue 0915 (AB)  
17499.0 E03a //22108 rptg 37568 USB 04/10/1999 Mon 0000 (JM4)  
17499.0 E03a //24644 rptg 44818 USB 04/10/1999 Mon 2200 (JM4)  
17499.0 E03a //22108 rptg 37568 USB 04/10/1999 Mon 2300 (JM4)  
17499.0 E03a in progress USB 06/10/1999 Wed 1300 (JM4)  
17499.0 E03a in progress USB 13/10/1999 Wed 1300 (JM4)  
17499.0 E03a //24644 in progress USB 13/10/1999 Wed 2200 (JM4)  
17499.0 E03a extremely weak USB 15/10/1999 Fri 1200 (JM4)  
17499.0 E03a //22108 rptg 16401 USB 18/10/1999 Mon 2300 (JM4)  
17499.0 E03a //22108 rptg 99390 USB 19/10/1999 Tue 0000 (JM4)  
17499.0 E03a //22108 weak USB 19/10/1999 Tue 2300 (JM4)  
17499.0 E03a //22108 weak USB 20/10/1999 Wed 0000 (JM4)  
17499.0 E03a in progress USB 20/10/1999 Wed 1300 (JM4)  
17499.0 E03a weak USB 27/10/1999 Wed 1300 (JM4)  
17499.0 E03a //22108 weak USB 27/10/1999 Wed 2300 (JM4)  
17499.0 E04 id 37568 USB 01/10/1999 Fri 1200 (GG)  
17499.0 E04 id 58268 USB 05/10/1999 Tue 1300 (GG)  
17499.0 E04 id 90782 USB 08/10/1999 Fri 1300 (GG)  
17499.0 M04 Cherry Ripe, id 44873. USB 27/10/1999 Wed 1300 (AB)  
18048.0 M42 FAPSI rtty 500/75, broadcast to SPK link 00168. RTTY  
01/10/1999 Fri 1800 (JD)  
18332.0 M42 FAPSI, calling RPR on link 10042. No msgs heard. CW

26/10/1999 Tue 0745 (AB)  
 18373.0 M42 FAPSI callup + Rtty msgs to UDZ21 on link 00054. RTTY  
 28/10/1999 Thu 1500 (AB)  
 18415 M16 vvv 8BY 532/992/ 533/708/449/682/706 12/10/1999 Tue  
 1540 (HFD)  
 18416.0 M16 //14931//20945 8BY tfc 371/ CW 14/10/1999 Thu 1345  
 18482.0 M22 //14649 4XZ in tfc CW 06/10/1999 Wed 1400 (JM4)  
 18482.0 M22 //6379//10356//14649 4XZ marker CW 09/10/1999 Sat 0020  
 (JM4)  
 18482.0 M22 //6379//10356//14649 4XZ marker CW 13/10/1999 Wed 0100  
 (JM4)  
 18482.0 M22 4XZ marker CW 27/10/1999 Wed 1400 (JM4)  
 18482.0 M22 //6379//10356//14649 4XZ in tfc CW 27/10/1999 Wed 2300  
 (JM4)  
 18482.0 M22 //10356//14649 4XZ marker CW 31/10/1999 Sun 1400 (JM4)  
 19072.0 M42 FAPSI 500/75 , in QSO with 17519. RTTY 25/10/1999 Mon  
 1410 (JD)  
 19088.0 M42 WNY QTC 1/100 RTTY 08/10/1999 Fri 1800 (BUNKY)  
 19354.0 M42 FAPSI, cw callup + msgs to RPO on link 80038. RTTY  
 26/10/1999 Tue 0800 (AB)  
 19715.0 E10 36 FIAWR USB 01/10/1999 Fri 0930 (GG)  
 19715.0 E10 EZI 32 ITLRz USB 01/10/1999 Fri 1100 (GG)  
 19715.0 E10 EZI 49 QCCLG USB 05/10/1999 Tue 0930 (GG)  
 19715.0 E10 EZI 89 JCOVQ USB 08/10/1999 Fri 1400 (GG)  
 19715.0 E10 EZI 49 QCCLG USB 09/10/1999 Sat 0930 (GG)  
 19715.0 E10 EZI 55 AGHCC USB 15/10/1999 Fri 0930 (GG)  
 19715.0 E10 Israeli Intel. EZI + msgs. AM 28/10/1999 Thu 0930 (AB)  
 19884.0 E03a //22108 rptg 54540 USB 06/10/1999 Wed 0100 (JM4)  
 19884.0 E03a //22108 weak USB 13/10/1999 Wed 0100 (JM4)  
 19884.0 E03a //21866 weak USB 19/10/1999 Tue 0100 (JM4)  
 19884.0 E03a //21866 weak USB 20/10/1999 Wed 0100 (JM4)  
 19884.0 E03a //21866 weak USB 28/10/1999 Thu 0100 (JM4)  
 19923.0 M42 PSN QTC 7/2310 RTTY 08/10/1999 Fri 2314 (BUNKY)  
 20474.0 E04 Cherry Ripe, id 40351. USB 28/10/1999 Thu 1000 (AB)  
 20741.0 M42 FAPSI rtty 500/75 , broadcast to SPK link 00168. RTTY  
 01/10/1999 Fri 1800 (JD)  
 20945.0 M16 //14931//18416 8BY tfc 371/ CW 14/10/1999 Thu 1345  
 21866.0 E03a weak USB 01/10/1999 Fri 0100 (JM4)  
 21866.0 E03a rptg 90782 USB 04/10/1999 Mon 0100 (JM4)  
 21866.0 E03a extremely weak USB 05/10/1999 Tue 0100 (JM4)  
 21866.0 E03a //19884 weak USB 19/10/1999 Tue 0100 (JM4)  
 21866.0 E03a //19884 weak USB 20/10/1999 Wed 0100 (JM4)  
 21866.0 E03a extremely weak USB 22/10/1999 Fri 0100 (JM4)  
 21866.0 E03a //19884 weak USB 28/10/1999 Thu 0100 (JM4)  
 22108.0 E03a in progress USB 01/10/1999 Fri 0000 (JM4)  
 22108.0 E03a //17499 rptg 37568 USB 04/10/1999 Mon 0000 (JM4)  
 22108.0 E03a //17499 rptg 37568 USB 04/10/1999 Mon 2300 (JM4)  
 22108.0 E03a rptg 90782 USB 05/10/1999 Tue 0000 (JM4)

22108.0 E03a //19884 rptg 54540 USB 06/10/1999 Wed 0100 (JM4)  
 22108.0 E03a //19884 rptg 4921\_ USB 08/10/1999 Fri 0100 (JM4)  
 22108.0 E03a //19884 weak  
 22108.0 E03a weak USB 14/10/1999 Thu 1300 (JM4)  
 22108.0 E03a //17499 rptg 16401 USB 18/10/1999 Mon 2300 (JM4)  
 22108.0 E03a //17499 rptg 99390 USB 19/10/1999 Tue 0000 (JM4)  
 22108.0 E03a //17499 weak USB 19/10/1999 Tue 2300 (JM4)  
 22108.0 E03a //17499 weak USB 20/10/1999 Wed 0000 (JM4)  
 22108.0 E03a rptg 38234 USB 22/10/1999 Fri 0000 (JM4)  
 22108.0 E03a //17499 weak USB 27/10/1999 Wed 2300 (JM4)  
 22108.0 E03a weak USB 28/10/1999 Thu 0000 (JM4)  
 22108.0 E04 id 58268 USB 05/10/1999 Tue 1300 (GG)  
 22108.0 E04 id 90782 USB 08/10/1999 Fri 1300 (GG)  
 22865.0 M42 PSN QTC 7/2310 RTTY 08/10/1999 Fri 2240 (BUNKY)  
 23130.0 M42 FAPSI, cw callup, 14 mins op chat, rtty msgs to EWZ 42  
 on link 60069. RTTY 26/10/1999 Tue 0710 (AB)  
 23461.0 E04 Cherry Ripe, in progress. USB 27/10/1999 Wed 1130 (AB)  
 24644.0 E03a //17499 rptg 44818 USB 04/10/1999 Mon 2200 (JM4)  
 24644.0 E03a //17499 in progress USB 13/10/1999 Wed 2200 (JM4)  
 24644.0 E03a rptg 16401 USB 19/10/1999 Tue 2200 (JM4)

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GG	Gallus Galus	UK
GO	Gary Otteson	USA
GW	Green Wyvern	USA
HFD	Hans-Friedrich Dumrese	Germany
HH	Harley Hero (Steve)	USA
JD	John Doe	UK
JE	Joerg Eberhardt	Germany
JJ	Jimmy Jones (Capt. Davros)	UK
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KK	K. Krebs	Canada
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